

**— EXHIBIT 5 —**

**In The Matter Of:**  
**CARE**  
**vs.**  
**Cow Palace**

**Deposition of**  
**James Maul**  
**October 31, 2014**



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<p style="text-align: right;">Page 2</p> <p>1 APPEARANCES:</p> <p>2 FOR THE PLAINTIFFS:</p> <p>3 MESSRS. CHARLES M. TEBBUTT and DAN SNYDER</p> <p>4 Law Offices of Charles M. Tebbutt</p> <p>5 Attorneys at Law</p> <p>6 941 Lawrence Street</p> <p>7 Eugene, OR 97401</p> <p>8 541.344.3505 541.344.3516 FAX</p> <p>9 charlie.tebbuttlaw@gmail.com</p> <p>10 FOR THE DEFENDANTS COW PALACE AND DOLSEN COMPANIES:</p> <p>11 MR. PRESTON N. CARTER</p> <p>12 Givens Pursley</p> <p>13 Attorneys at Law</p> <p>14 601 West Bannock</p> <p>15 P.O. Box 2720</p> <p>16 Boise, ID 83701</p> <p>17 208.388.1200 208.388.1300 FAX</p> <p>18 prestoncarter@givenspursley.com</p> <p>19 and</p> <p>20 MS. KRISTA L. NELSON</p> <p>21 Stokes Lawrence</p> <p>22 Attorneys at Law</p> <p>23 1420 Fifth Avenue, Suite 3000</p> <p>24 Seattle, WA 98101</p> <p>25 206.626.6000 206.464.1496 FAX</p> <p>krista.nelson@stokeslaw.com</p> <p>FOR THE DEFENDANT THREE D:</p> <p>MR. RALPH H. PALUMBO</p> <p>Summit Law Group</p> <p>Attorneys at Law</p> <p>315 Fifth Avenue, Suite 1000</p> <p>Seattle, WA 98104-2682</p> <p>206.676.7000 206.676.7001 FAX</p> <p>ralphp@summitlaw.com</p> <p>ALSO PRESENT:</p> <p>MR. BILL DOLSEN</p> <p>MR. ADAM DOLSEN</p>	<p style="text-align: right;">Page 4</p> <p>1 BE IT REMEMBERED that on Friday, October</p> <p>2 31, 2014, at 8:35 a.m., at 936 North 34th Street,</p> <p>3 Suite 300, Seattle, Washington, the deposition of</p> <p>4 JAMES MAUL was taken before Phyllis Craver Lykken,</p> <p>5 Certified Court Reporter. The following</p> <p>6 proceedings took place:</p> <p>7</p> <p>8 JAMES MAUL, being first duly sworn to tell</p> <p>9 the truth, the whole truth and</p> <p>10 nothing but the truth,</p> <p>11 testified as follows:</p> <p>12</p> <p>13 EXAMINATION</p> <p>14 BY MR. TEBBUTT:</p> <p>15 Q. Mr. Maul, would you please state your full name and</p> <p>16 address for the record, please.</p> <p>17 A. James J. Maul, 400 East Mill Plain Boulevard,</p> <p>18 Vancouver, Washington, 98665. I go by Jim.</p> <p>19 Q. Mr. Maul, looking at your resume, I'm assuming you've</p> <p>20 been deposed before?</p> <p>21 A. Yes, sir, I have.</p> <p>22 Q. How many times?</p> <p>23 A. I'm not sure of the exact number, but I'd say in my</p> <p>24 career it's probably been five, six times.</p> <p>25 Q. How many times have you testified at trial?</p>
<p style="text-align: right;">Page 3</p> <p>1 I N D E X</p> <p>2 CARE, et al. vs. COW PALACE, et al.</p> <p>3 NO. CV-13-3016 TOR</p> <p>4 October 31, 2014</p> <p>5</p> <p>6</p> <p>7 T E S T I M O N Y</p> <p>8 JAMES MAUL PAGE NO.</p> <p>9 Examination by Mr. Tebbutt 4 - 139</p> <p>10</p> <p>11</p> <p>12</p> <p>13</p> <p>14</p> <p>15 E X H I B I T S</p> <p>16 (Exhibits 1 - 345 were marked in previous</p> <p>17 depositions.)</p> <p>18 Exhibit No. 346, Expert Report of James J. Maul, 7</p> <p>19 LHG</p> <p>20 Exhibit No. 347, Rebuttal Expert Report of James 7</p> <p>21 J. Maul, LHG</p> <p>22 Exhibit No. 348, Laboratory Analysis Reports 68</p> <p>23 Exhibit No. 349, EPA Report 83</p> <p>24</p> <p>25</p>	<p style="text-align: right;">Page 5</p> <p>1 A. I've testified at trial in one trial.</p> <p>2 Q. In federal or state court?</p> <p>3 A. It was, I believe it was, I don't think it was state</p> <p>4 court, it was like I think -- I'm trying to think of</p> <p>5 the correct term.</p> <p>6 Q. Is it administrative proceeding?</p> <p>7 A. Yes. Or civil proceeding. Excuse me. Yeah. So it</p> <p>8 would have been -- what's the word for one level down</p> <p>9 from state? Local?</p> <p>10 Q. District court?</p> <p>11 A. District court.</p> <p>12 Q. State district court?</p> <p>13 A. Yeah.</p> <p>14 Q. Or circuit court, something along those lines?</p> <p>15 A. Yeah. Yeah.</p> <p>16 Q. In Washington?</p> <p>17 A. Oregon.</p> <p>18 Q. Just to go over a couple of ground rules, human nature</p> <p>19 is that we sometimes anticipate questions and want to</p> <p>20 give answers before the question is posed. I would ask</p> <p>21 that you wait until my question is finished before you</p> <p>22 give any kind of an answer. All right?</p> <p>23 A. Sure.</p> <p>24 Q. We'll need to give an audible answer, yeses and nos.</p> <p>25 Nods of the head don't work; yeses and nos are the best</p>



<p style="text-align: right;">Page 6</p> <p>1 or, you know, if it's a narrative answer, by all means.</p> <p>2 If you don't understand my question, please tell</p> <p>3 me, otherwise I will assume you understand my question.</p> <p>4 Okay.</p> <p>5 A. Yes.</p> <p>6 Q. You'll hear, it's highly likely, more likely than not</p> <p>7 from a reasonable degree of scientific certainty, that</p> <p>8 your counsel will impose some objections today. Those</p> <p>9 objections, however, unless you're instructed not to</p> <p>10 answer, you still must answer the question. Do you</p> <p>11 understand that?</p> <p>12 A. Yes.</p> <p>13 (MESSRS. BILL AND ADAM DOLSEN</p> <p>14 ENTERED THE ROOM.)</p> <p>15 Q. And you know that this deposition has a number of uses.</p> <p>16 It can be used at trial, for instance, if you're</p> <p>17 unavailable. Do you know that it can be used as</p> <p>18 testimony of yours if potentially you're unavailable at</p> <p>19 trial?</p> <p>20 A. Okay.</p> <p>21 Q. And it can also be used in a number of ways. For</p> <p>22 instance, if you were to testify at trial to something</p> <p>23 that's outside the scope of your expert report and you</p> <p>24 opine differently at trial than what you opined in one</p> <p>25 of your expert reports, it can used to limit your</p>	<p style="text-align: right;">Page 8</p> <p>1 Q. Mr. Maul, have you ever done an expert report in a</p> <p>2 federal case like you did for this particular case?</p> <p>3 A. No.</p> <p>4 Q. I'm going to go hand you what's been marked as Exhibits</p> <p>5 346 and 347 in this case and ask you first is 346 a</p> <p>6 complete copy of your initial expert report in this</p> <p>7 matter?</p> <p>8 A. Yes.</p> <p>9 Q. And 346 is a complete copy of your initial expert</p> <p>10 report?</p> <p>11 A. I believe it is.</p> <p>12 Q. Okay. By the way, I forgot to tell you, for the</p> <p>13 record, I'm Charlie Tebbutt. I represent CARE and The</p> <p>14 Center For Food Safety in this case against Cow Palace</p> <p>15 and against Henry Bosma Dairy and DeRuyter Dairy. Do</p> <p>16 you understand that?</p> <p>17 A. I understand that.</p> <p>18 Q. Okay. We've never met before, have we?</p> <p>19 A. No.</p> <p>20 Q. Exhibit 347, is that a complete copy of the rebuttal</p> <p>21 report you provided in this case?</p> <p>22 A. Yes.</p> <p>23 Q. Just keep those nearby and we'll be referring to them</p> <p>24 every now and again. In fact, I'm going to start off</p> <p>25 by asking you about some of your projects that you've</p>
<p style="text-align: right;">Page 7</p> <p>1 testimony at trial. Do you understand that?</p> <p>2 A. Yes.</p> <p>3 Q. And do you also understand that it can be used to, if</p> <p>4 you give a different answer at trial, it can be used to</p> <p>5 show that you gave different answers at different</p> <p>6 times, both under oath. Do you understand that?</p> <p>7 A. Yes.</p> <p>8 MR. CARTER: Counsel, if it's all right, before we</p> <p>9 get started, Mr. Maul inadvertently left off a</p> <p>10 publication that was made within the last ten years</p> <p>11 from his resume in his report, and he's willing and</p> <p>12 able to say what that publication is at this time.</p> <p>13 Q. All right. What is the publication?</p> <p>14 A. It was Integrated Brown Field Planting. It was</p> <p>15 published in May of 2010 in the Oregon Insider, a</p> <p>16 publication in Oregon.</p> <p>17 Q. Didn't have anything to do with nitrate contamination,</p> <p>18 did it?</p> <p>19 A. No.</p> <p>20 Q. Is there anything else that you left out of your report</p> <p>21 that we should know about this morning?</p> <p>22 A. Not that I'm aware of.</p> <p>23 MR. TEBBUTT: Off the record for a second.</p> <p>24 (PLAINTIFF EXHIBIT NOS. 346 &amp; 347 WERE</p> <p>25 MARKED FOR IDENTIFICATION.)</p>	<p style="text-align: right;">Page 9</p> <p>1 worked on over time.</p> <p>2 You said you did a Clatsop Plains 208 groundwater</p> <p>3 study. What's a 208 study?</p> <p>4 A. It was a federally funded program to study aquifers</p> <p>5 that were considered to be sensitive to potential</p> <p>6 impacts from septic systems as a result of anticipated</p> <p>7 development.</p> <p>8 Q. So to that Section 208 of the Clean Water Act,</p> <p>9 area-wide planning?</p> <p>10 A. Yeah, I believe that's what it was related to.</p> <p>11 Q. And so did you work on behalf of the federal government</p> <p>12 in that, in the Clatsop Plains case?</p> <p>13 A. I was working for a private consulting company, Sweet,</p> <p>14 Edwards &amp; Associates and they were under contract to</p> <p>15 another engineering company, I believe it was R.W.</p> <p>16 Beck, I'm not positive, and we were subcontracted to do</p> <p>17 the groundwater investigation portion of the study.</p> <p>18 Q. So essentially you worked for the developer, the</p> <p>19 proposed developer in that case?</p> <p>20 A. Well, it was a federally funded program, so we were --</p> <p>21 actually, I believe the money was administered through</p> <p>22 Clatsop County in that case, if I remember right. I</p> <p>23 think it was administered through a local governmental</p> <p>24 agency that then they, they contracted and paid to --</p> <p>25 paid for the activities associated with the study.</p>

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<p style="text-align: right;">Page 10</p> <p>1 Q. So you essentially ended up, you worked for Clatsop 2 County, then?</p> <p>3 A. Yes, yes.</p> <p>4 Q. Okay. And you said you evaluated hydrogeologic 5 conditions and the impact from nitrate loading 6 associated with anticipated development to shallow 7 groundwater. How big a development were we talking 8 about here, what kind of development?</p> <p>9 A. Well, it wasn't a single development, it was -- the 10 focus and nature of the study was to look at an area of 11 the Clatsop dune aquifer. It was roughly from, if 12 you're -- I don't know if you're familiar with that 13 area or not. Gearhart, north of Gearhart almost to 14 Warrenton. And let's see...</p> <p>15 Q. Let me stop you.</p> <p>16 A. It was a fairly large area and --</p> <p>17 Q. That's what I was going to try to get at, is what kind 18 of an area. Do you know how many square miles?</p> <p>19 A. No, I don't. But it was probably an area that was ten 20 miles long between Highway 101 and the ocean.</p> <p>21 Q. Ten miles long. About how many miles wide, do you 22 know, approximately?</p> <p>23 A. A couple miles wide, maybe, yeah.</p> <p>24 Q. So 20, 30, 40 square miles, something like that?</p> <p>25 A. It was a fairly large area, yeah.</p>	<p style="text-align: right;">Page 12</p> <p>1 Q. Thanks. I'll remind you of that probably throughout, 2 because I know we all fall back from that sometimes.</p> <p>3 I see you have done at least two other of these 4 208 types of area-wide planing studies; is that fair to 5 say?</p> <p>6 A. Yes.</p> <p>7 Q. Are those the only -- the Florence project in Oregon 8 and the Deschutes Basin project in Oregon, are those 9 the only two other 208 studies that you have done or 10 participated in?</p> <p>11 A. Yes.</p> <p>12 Q. And those all dealt with evaluating impacts from 13 nitrogen loading, correct, or potential impacts from 14 nitrogen loading?</p> <p>15 A. Yes. Relative to septic tanks, yes.</p> <p>16 Q. What I would really like to just get to rather than 17 spending a lot of time beating around the bush is 18 whether you've done, you've calculated what the 19 nitrogen loadings are in any of these cases, any of 20 these potential cases, these three cases.</p> <p>21 MR. CARTER: Object -- you clarified it. My 22 objection was confusing. But.</p> <p>23 A. Could you repeat the question, please?</p> <p>24 Q. Yeah. Have you done any calculations of what the 25 nitrogen loadings are in any of the 208 studies we're</p>
<p style="text-align: right;">Page 11</p> <p>1 Q. How much development was proposed for that area, how 2 many people were you looking at in your modeling to 3 project what the nitrogen loading might be?</p> <p>4 A. I don't know.</p> <p>5 Q. Hundreds, thousands?</p> <p>6 A. There were going to be -- I think, I believe that there 7 were, it was in anticipation of a number of homes being 8 developed on the dune, subdivisions. I don't know the 9 numbers.</p> <p>10 Q. Did you develop a model along with that about what the 11 nitrogen loading might be to the dunal aquifer?</p> <p>12 A. There was a model developed, I didn't develop it.</p> <p>13 Q. That wasn't what your firm was asked to do?</p> <p>14 A. That wasn't, no.</p> <p>15 Q. Hang on, wait until I ask my question.</p> <p>16 A. Sorry.</p> <p>17 Q. It's human nature to have these kinds of discussions, 18 but for the court reporter's purposes we have to go 19 slowly.</p> <p>20 A. I understand.</p> <p>21 Q. Please don't talk over one another because the court 22 reporter can only get one of our statements down at a 23 time. So refrain, please, from interjecting something 24 until I'm done and I've asked you a question. Okay?</p> <p>25 A. Fair enough.</p>	<p style="text-align: right;">Page 13</p> <p>1 talking about right now?</p> <p>2 A. No.</p> <p>3 Q. So how do you evaluate the impact from nitrogen loading 4 without knowing what the loading is?</p> <p>5 A. I was evaluating the hydrogeology as it related to that 6 component of the study.</p> <p>7 Q. So were nitrogen loading modeling calculations given to 8 you to determine whether they would impact groundwater?</p> <p>9 A. No. We -- I was collecting data that would be used in 10 other modeling efforts and calculations to evaluate 11 nitrogen loading to the groundwater. I didn't do the 12 calculations.</p> <p>13 Q. So isn't it, then, a misstatement that you evaluated 14 the impact from nitrogen loadings in these three cases?</p> <p>15 A. That may not be precise.</p> <p>16 Q. Well, that's why I would like to get to. Precision is 17 a lot of what we're talking about --</p> <p>18 A. Is part of the project.</p> <p>19 Q. Hang on a second. Precision is a lot of what we're 20 talking about here today, so I want to be precise with 21 what you're saying you've done.</p> <p>22 You did not in fact evaluate the nitrogen loadings 23 to the aquifers in either of these three 208 studies, 24 correct?</p> <p>25 A. I didn't do those calculations.</p>

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<p style="text-align: right;">Page 14</p> <p>1 Q. So then the statements in your resume are incorrect,</p> <p>2 are they not?</p> <p>3 MR. CARTER: I'll object, counsel. What page are</p> <p>4 you looking at? It might be helpful for Mr. Maul to</p> <p>5 review them.</p> <p>6 Q. Feel free to take a look. This is his qualifications</p> <p>7 and expert disclosures attachment to his report.</p> <p>8 MR. CARTER: What page?</p> <p>9 MR. TEBBUTT: Starting on the first page under</p> <p>10 project examples.</p> <p>11 MR. CARTER: Which example are we talking about?</p> <p>12 MR. TEBBUTT: Clatsop Plains 208 or Florence,</p> <p>13 Oregon Dunes 208 and Deschutes Basin 208.</p> <p>14 MR. CARTER: I'll object. That misstates what's</p> <p>15 stated on the resume. The resume on the Florence,</p> <p>16 Oregon, 208 says Mr. Maul evaluated hydrogeologic</p> <p>17 conditions and evaluated the impact of nitrogen</p> <p>18 loading.</p> <p>19 Q. (By Mr. Tebbutt) Exactly. My question is, you didn't</p> <p>20 evaluate the impact from nitrogen loading, did you, in</p> <p>21 the Florence case?</p> <p>22 A. I didn't do the calculations evaluating the impact.</p> <p>23 Q. Someone else did?</p> <p>24 A. From nitrogen loading. Yes, there was another person</p> <p>25 that took data that I participated in collecting as a</p>	<p style="text-align: right;">Page 16</p> <p>1 Q. All right. My question again is you did not evaluate</p> <p>2 the impact from nitrogen loading in either -- any of</p> <p>3 these three cases, did you?</p> <p>4 MR. PALUMBO: Same objection. Asked and answered.</p> <p>5 MR. CARTER: Asked and answered.</p> <p>6 A. I didn't do the calculations that went in to</p> <p>7 determining the loading to the -- of nitrogen to the</p> <p>8 aquifer.</p> <p>9 Q. Not only did you not do the calculations, you did not</p> <p>10 evaluate the impact of those calculations, did you?</p> <p>11 MR. PALUMBO: Same objection. Asked and answered.</p> <p>12 MR. CARTER: Same objection.</p> <p>13 A. Maybe I don't understand what you mean by evaluated.</p> <p>14 Q. That's what I'm trying to get at, because that's what</p> <p>15 you say. You say you evaluated the impact from</p> <p>16 nitrogen loading and I asked you what were the impacts</p> <p>17 and you said I don't know, I didn't do those</p> <p>18 evaluations.</p> <p>19 MR. PALUMBO: Objection. Mischaracterizes the</p> <p>20 witness's testimony.</p> <p>21 Q. Isn't that a fair statement?</p> <p>22 A. I didn't do the calculations that went into calculating</p> <p>23 the impacts from nitrogen loading.</p> <p>24 Q. I've heard you say that now a few times.</p> <p>25 A. Uh-huh.</p>
<p style="text-align: right;">Page 15</p> <p>1 part of that study and used that to evaluate the impact</p> <p>2 of nitrogen loading to that aquifer.</p> <p>3 Q. I'll try to get right to the point here. The Deschutes</p> <p>4 Basin 208 study and the Clatsop 208 study you did not</p> <p>5 evaluate the impact from nitrogen loading in either of</p> <p>6 those two cases, either, did you?</p> <p>7 MR. PALUMBO: Objection. Asked and answered.</p> <p>8 Q. If you want to say no, we can move on. Or that's</p> <p>9 correct that you didn't, then we can move on.</p> <p>10 MR. PALUMBO: Counsel, let the witness answer the</p> <p>11 question.</p> <p>12 MR. TEBBUTT: You just said asked and answered and</p> <p>13 I'm trying to find out what the answer was.</p> <p>14 MR. PALUMBO: I state my objection, you permit the</p> <p>15 witness to answer, and then you can ask another</p> <p>16 question.</p> <p>17 MR. TEBBUTT: This is my deposition and I'll</p> <p>18 handle it the way I'd like, Mr. Palumbo.</p> <p>19 MR. PALUMBO: I'll continue to object the way I</p> <p>20 like.</p> <p>21 A. I was part of a study that evaluated the impacts from</p> <p>22 nitrogen loading to the aquifer in all three of these</p> <p>23 situations. I didn't perform the calculations, but I</p> <p>24 helped develop the information that went in to the</p> <p>25 study and the results.</p>	<p style="text-align: right;">Page 17</p> <p>1 Q. That's not answering my question. You didn't evaluate</p> <p>2 the impacts from the nitrogen loading in any of those</p> <p>3 three cases, someone else did that, correct?</p> <p>4 MR. PALUMBO: Same objection.</p> <p>5 MR. CARTER: Same objection.</p> <p>6 A. I think I'm beginning to understand your question a</p> <p>7 little bit better, counselor.</p> <p>8 I did perform evaluations of the potential for</p> <p>9 nitrogen loading relative to some of the predicted</p> <p>10 impacts. For example, evaluating the hydrogeology and</p> <p>11 where groundwater would discharge and the hydro-</p> <p>12 geologic characteristics of the dunes was part of the</p> <p>13 evaluation.</p> <p>14 So I didn't do the calculations of the nitrogen</p> <p>15 loading, but I was part of a project team and I did</p> <p>16 perform evaluations that went into addressing the</p> <p>17 potential impacts of the loading.</p> <p>18 Q. Right. So in your work you looked at hydrogeologic</p> <p>19 conditions and potential pathways of contaminant</p> <p>20 transfer; is that a fair statement?</p> <p>21 A. Yes.</p> <p>22 Q. But you didn't apply the nitrogen loading potential to</p> <p>23 the transport mechanisms themselves; is that a fair</p> <p>24 statement?</p> <p>25 A. Could you repeat that? I'm sorry.</p>



<p style="text-align: right;">Page 18</p> <p>1 Q. I'll rephrase it.</p> <p>2 A. I'm not sure I understand.</p> <p>3 Q. You looked at the general hydrogeologic conditions,</p> <p>4 correct?</p> <p>5 A. I was part of the data collection and developing the</p> <p>6 interpretation of that data --</p> <p>7 Q. Okay.</p> <p>8 A. -- relative to the hydrogeologic conditions. For</p> <p>9 example, relative to the Clatsop Plains.</p> <p>10 Q. What type of data it did you collect?</p> <p>11 A. Groundwater monitoring data, hydrology data, soils</p> <p>12 data, prepared drilling logs, collected samples of</p> <p>13 effluent from septic tanks, septic systems, helped</p> <p>14 tabulate.</p> <p>15 Q. In that particular area?</p> <p>16 A. Tabulated data. Yes.</p> <p>17 Q. Okay. And so the, you put in monitoring wells in the</p> <p>18 area?</p> <p>19 A. Yes.</p> <p>20 Q. Okay. And as part of the work that you did, was there</p> <p>21 a nitrogen loading estimate for the development in</p> <p>22 these three projects?</p> <p>23 A. Yes.</p> <p>24 Q. Okay. Did you apply those nitrogen loading estimates</p> <p>25 to your hydrogeologic work that you did and make a</p>	<p style="text-align: right;">Page 20</p> <p>1 the potential nitrogen loading in the vegetable</p> <p>2 processing operations were on groundwater?</p> <p>3 A. No.</p> <p>4 Q. You weren't asked to do that?</p> <p>5 A. No.</p> <p>6 Q. So you just developed -- when you say you developed</p> <p>7 baseline data for nitrates, that was prior to the</p> <p>8 Agripac 200-acre land application facility being put in</p> <p>9 place or was it after the 200-acre land application</p> <p>10 facility had been in place?</p> <p>11 A. Prior to.</p> <p>12 Q. So your job was just to determine what the nitrate</p> <p>13 levels were in the groundwater under that area for</p> <p>14 baseline purposes?</p> <p>15 A. That and the hydrogeologic characteristics of the area.</p> <p>16 Q. Your Clark County, Washington, project involved a</p> <p>17 dairy, correct?</p> <p>18 A. Yes.</p> <p>19 Q. And a spill of what, manure?</p> <p>20 A. Yes.</p> <p>21 Q. How big was the spill, do you know?</p> <p>22 A. It was pretty substantial in size, it ran into a stream</p> <p>23 and probably impacted roughly three miles along the</p> <p>24 reach of the stream downstream from where the discharge</p> <p>25 occurred.</p>
<p style="text-align: right;">Page 19</p> <p>1 determination whether the nitrogen loadings could</p> <p>2 impact the aquifers in any of these three studies?</p> <p>3 A. I don't believe that I did that.</p> <p>4 Q. Isn't it fair to say, then, that you didn't evaluate</p> <p>5 the impact from nitrogen loading in these three cases?</p> <p>6 MR. CARTER: Objection. That's been asked and</p> <p>7 answered.</p> <p>8 A. I'm not, I'm not sure that I can give you a precise</p> <p>9 answer to that, because I was part of a project team</p> <p>10 that performed -- that looked at a number of different</p> <p>11 parameters and provided input and assistance, including</p> <p>12 report preparation. So I, I can't say that I wasn't</p> <p>13 part of the team that evaluated that.</p> <p>14 Q. You were part of the team, but you're not the one who</p> <p>15 did the evaluations, correct?</p> <p>16 A. I wasn't the lead on the evaluations.</p> <p>17 Q. We'll move on.</p> <p>18 You, keeping an eye on your attachment again, the</p> <p>19 Agripac study that you did in Lane County, Washington;</p> <p>20 is that correct?</p> <p>21 A. No, that would be Lane County, Oregon.</p> <p>22 Q. Okay. So that's incorrect as well. So it's Lane</p> <p>23 County, Oregon, not Lane County, Washington?</p> <p>24 A. I'm sorry. Yeah, that is incorrect.</p> <p>25 Q. Okay. In the Agripac situation, did you determine what</p>	<p style="text-align: right;">Page 21</p> <p>1 Q. Did you do evaluations of the nutrient loadings to the</p> <p>2 stream?</p> <p>3 A. No.</p> <p>4 Q. What did you do?</p> <p>5 A. Developed a response plan for cleaning up as much of</p> <p>6 the manure near the source area as possible, and</p> <p>7 collected samples to evaluate for residual impacts</p> <p>8 associated with the manure spill.</p> <p>9 Q. Who did you work for in that case?</p> <p>10 A. The dairy farmer.</p> <p>11 Q. How big was the dairy?</p> <p>12 A. 200 cows.</p> <p>13 Q. What year was this?</p> <p>14 A. I believe it was, it was around, I don't know the</p> <p>15 exact --</p> <p>16 Q. Approximately?</p> <p>17 A. -- date. Early 2000, I believe; might have been late</p> <p>18 '90s.</p> <p>19 Q. And so the volume of manure that you dealt with, was it</p> <p>20 thousands of gallons, tens of thousands of gallons, do</p> <p>21 you know what order of magnitude it was?</p> <p>22 A. I don't recall the exact amount, I would guess it was</p> <p>23 over, over a thousand gallons.</p> <p>24 Q. Under 10,000? Just wondering orders of magnitude?</p> <p>25 A. Yeah, I'm thinking that's probably the range. Yeah.</p>





<p style="text-align: right;">Page 22</p> <p>1 Q. Okay. And is that your only experience with dairy 2 farms in your professional experience? 3 A. Yes. 4 Q. Have you visited Cow Palace? 5 A. Yes. 6 Q. When? 7 A. It was this summer. 8 Q. How long were you there? 9 A. Probably a couple hours. 10 Q. Tell me about your, what did you do when you were 11 there? 12 A. Toured the facility. 13 Q. How did you tour it, by car, by foot, by? 14 A. By car, truck. 15 Q. Who were you there with? 16 A. Attorneys from Givens Pursley, Adam was on the tour. 17 Q. You're pointing to Adam Dolsen at the end of the table? 18 A. Yes, yes. 19 Q. Okay. 20 A. The dairy operations manager, I don't remember his 21 name. 22 Q. Jeff Boivin? 23 A. Might have been. I don't remember his name. My 24 colleague Tom Mullin, works for Maul, Foster &amp; Alongi; 25 Matt Harrington, another attorney; another gentleman,</p>	<p style="text-align: right;">Page 24</p> <p>1 A. I was involved in his hiring him. I didn't personally 2 hire him. 3 Q. Had you known Mr. Mullin before you hired him? 4 A. No. 5 Q. Did he, did you ask him why he was leaving Arcadis? 6 A. We talked about it when we were having discussions 7 about him joining MFA. 8 Q. And what did he tell you? 9 A. He said he felt like Arcadis had gotten -- had grown to 10 the point where the office that Tom was in and just in 11 the Spokane area was sort of being -- did not really 12 fit with the Arcadis business model because of its 13 size; that Arcadis was targeting larger projects and 14 that he was looking for a smaller firm that he could go 15 to work for and feel like he was more engaged in 16 projects that fit, I guess fit better with -- a better 17 fit with the firm, would be a way to, a fair way to 18 describe it. And he felt like MFA offered that, 19 offered him that kind of opportunity and culture. 20 Q. Does he still work on the east side of Washington for 21 you? 22 A. Yes. Excuse me. He is actually based in Coeur 23 d'Alene. And works in both Washington and Idaho. 24 Q. So you have an office in Coeur d'Alene? 25 A. We are opening an office in Coeur d'Alene. We have an</p>
<p style="text-align: right;">Page 23</p> <p>1 and I don't remember his name, but he was an employee 2 of the Cow Palace. That's it. 3 Q. When you say attorneys from Givens Pursley, do you know 4 who they were? 5 A. Yes, it was Preston and -- 6 Q. The gentleman sitting to your left? 7 MR. CARTER: Out of the office again. 8 A. And Jeff Fereday. 9 Q. Okay. Have you ever done any work for Givens Pursley 10 before this case? 11 A. No. 12 Q. Have you ever done any work for Stokes Lawrence before 13 this case? 14 A. No. 15 Q. Mr. Mullin, when did you -- you said Mr. Mullin is in 16 your employ now? 17 A. Yes. 18 Q. How long has he been in your employ? 19 A. I don't know the exact date of his joining MFA. 20 Q. I'm not asking for an exact date, but approximately 21 when? 22 A. Just a year, a little over a year. 23 Q. Okay. And he came from where? 24 A. From Arcadis. 25 Q. Did you personally hire Mr. Mullin?</p>	<p style="text-align: right;">Page 25</p> <p>1 office in Kellogg right now and Tom works out of his 2 house in Coeur d'Alene until currently. 3 Q. Do you have other offices besides your office in 4 Seattle and the one in Kellogg? 5 A. Yes. 6 Q. Where else? 7 A. Bellingham. 8 Q. How many people are in that office? 9 A. There is about seven people in that office. Seattle, 10 four or five people. Vancouver, Washington, we have 11 about 15, 17 people there. And then in Portland, 12 Oregon. 13 Q. Did you consult with Mr. Mullen at all in preparing 14 your expert reports in this case? 15 A. Yes. 16 Q. What type of information did you acquire from Mr. 17 Mullen in preparing your report? 18 A. He assisted me in the review of the EPA report and he 19 also described some of the work that he had performed 20 when he was with Arcadis relative to the dairy AOC. 21 Q. Did Mr. Mullen present with you any data with respect 22 to his time when he worked for Arcadis? 23 A. He's helped me with locating some of the well logs for 24 some of the wells that are referenced in the EPA 25 report, and also directed me to some of the monitoring</p>

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<p style="text-align: right;">Page 26</p> <p>1 well logs that were installed by Arcadis that Mr.</p> <p>2 Mullen was also the -- had a role in logging some of</p> <p>3 those wells and so he's describing a description of</p> <p>4 some of the materials that he encountered in the</p> <p>5 subsurface, and the geology and conditions in the area.</p> <p>6 Q. Did Mr. Mullen bring any files with him from Arcadis</p> <p>7 with respect to Cow Palace or Bosma or DeRuyter</p> <p>8 facilities when he came to work for you?</p> <p>9 A. Not that I'm aware of.</p> <p>10 Q. Who else has assisted you in preparing your reports in</p> <p>11 this case?</p> <p>12 A. Erik Naylor is the other person who provided me with</p> <p>13 assistance on the project.</p> <p>14 Q. Who is Mr. Naylor?</p> <p>15 A. He's a project chemist that works for MFA,</p> <p>16 environmental scientist/project chemist.</p> <p>17 Q. And what assistance did he provide?</p> <p>18 A. He primarily reviewed the analytical data and the</p> <p>19 Quality Assurance Project Plan and data quality</p> <p>20 objectives and some of the validation that went into</p> <p>21 the data and provided me with some input, and I</p> <p>22 discussed with him the interpretation of the data.</p> <p>23 Q. Okay. So you're not a chemist yourself, correct?</p> <p>24 A. That's correct.</p> <p>25 Q. You relied on Mr. Naylor for the chemistry critique of</p>	<p style="text-align: right;">Page 28</p> <p>1 for your critique of the EPA report?</p> <p>2 A. Yes. I did, I did -- I briefly scanned the comments</p> <p>3 that were prepared by Arcadis, but I didn't go into</p> <p>4 reviewing them in any detail.</p> <p>5 Q. The comments prepared by Arcadis critiquing the EPA</p> <p>6 report?</p> <p>7 A. Yes. During the public comment period and then also</p> <p>8 comments prepared by Mr. Turner and --</p> <p>9 Q. Who is Mr. Turner?</p> <p>10 A. There was a -- it was another set of comments that were</p> <p>11 prepared by -- I forget what his first name is. I</p> <p>12 don't have it with me.</p> <p>13 Q. Was it Stuart Turner?</p> <p>14 A. Stuart Turner, yes, that's right.</p> <p>15 Q. Was it Stuart? Do you know Stuart Turner?</p> <p>16 A. No, I don't know Stuart Turner.</p> <p>17 Q. From Yakima?</p> <p>18 A. Yeah.</p> <p>19 Q. Did you rely at all on Mr. Turner's comments in</p> <p>20 critiquing the EPA report?</p> <p>21 A. There was one comment that he made regarding the</p> <p>22 historical irrigation practices that I, I referenced in</p> <p>23 terms of a possible source of groundwater contamination</p> <p>24 other than the dairies.</p> <p>25 Q. So you relied on his representation of the history?</p>
<p style="text-align: right;">Page 27</p> <p>1 the EPA report?</p> <p>2 A. Yes.</p> <p>3 Q. Mr. Maul, I want to ask you with respect to your</p> <p>4 initial report in this case, what documents did you</p> <p>5 have in front of you to make your determinations? And</p> <p>6 the reason I ask is I don't see a list of anything, any</p> <p>7 documents that you relied on other than the references</p> <p>8 that you make on the second to the last page. No, I</p> <p>9 won't go there. Yeah, the references -- no. I don't</p> <p>10 even see any references. You don't have any references</p> <p>11 in your initial report, do you?</p> <p>12 A. No.</p> <p>13 Q. Is that unusual to do a 14-page report and not have a</p> <p>14 single reference in it, scientific reference?</p> <p>15 A. I was asked to review the EPA report and that's what I</p> <p>16 did.</p> <p>17 Q. Yeah, but when you do reviews, don't you usually cite</p> <p>18 to other scientific literature for propositions that</p> <p>19 you were putting forth?</p> <p>20 A. That's a possibility.</p> <p>21 Q. Isn't that kind of a usual scientific practice?</p> <p>22 A. Not necessarily.</p> <p>23 Q. No? So just your --</p> <p>24 A. In this case I relied on my experience.</p> <p>25 Q. So your experience is the only reference that you have</p>	<p style="text-align: right;">Page 29</p> <p>1 MR. CARTER: Misstates prior testimony.</p> <p>2 Q. Is that a fair statement? You relied on his</p> <p>3 representation of what the historical agricultural</p> <p>4 practices were in that area, Mr. Turner's</p> <p>5 representation?</p> <p>6 A. I confirmed what I had heard anecdotally, yes.</p> <p>7 Q. So what did you hear anecdotally about the history of</p> <p>8 agricultural practices in that area?</p> <p>9 A. It was just a reference to the flood irrigation</p> <p>10 activities that had occurred, real common practice, my</p> <p>11 understanding, in the Valley.</p> <p>12 Q. Who did you hear that from?</p> <p>13 A. I believe it was discussed during our tour of the Cow</p> <p>14 Palace Dairy as we were talking about the historical</p> <p>15 activities on the -- in the area.</p> <p>16 Q. So who told you that?</p> <p>17 A. Then -- I don't recall exactly who was, who made that</p> <p>18 reference. But then I followed up and discussed it</p> <p>19 with Tom Mullen, and Tom was aware of it as well.</p> <p>20 Q. Okay. And was your confirmation of the anecdotal</p> <p>21 discussions of the history of agricultural practices</p> <p>22 confirmed by your review of Stuart Turner's comments?</p> <p>23 A. It was supported by Stuart Turner's comments.</p> <p>24 Q. So is that your scientific basis for the history of the</p> <p>25 agricultural practices in the area, Mr. Turner's</p>



<p style="text-align: right;">Page 30</p> <p>1 comments?</p> <p>2 A. After preparing my up initial report, I also reviewed a</p> <p>3 document that is referenced in my rebuttal report that</p> <p>4 also documents the history of flood irrigation in the</p> <p>5 Yakima Valley and the historical practices.</p> <p>6 Q. Take a look at Exhibit 347, your rebuttal report, and</p> <p>7 tell me what it is you relied on for making that</p> <p>8 determination.</p> <p>9 A. That would be Zuroske, 2009.</p> <p>10 Q. Okay. Do you have any citation or data or information</p> <p>11 to show whether there was flood irrigation practices at</p> <p>12 or around the Cow Palace facility land?</p> <p>13 A. I don't have specific documentation of that.</p> <p>14 Q. None whatsoever?</p> <p>15 A. None.</p> <p>16 Q. So then you're speculating that flood irrigation</p> <p>17 happened right at and around the Cow Palace facility;</p> <p>18 is that correct?</p> <p>19 A. No.</p> <p>20 MR. CARTER: Object. That misstates prior</p> <p>21 testimony.</p> <p>22 Q. When you said no, you weren't speculating?</p> <p>23 A. I'm sorry. Could you repeat the question?</p> <p>24 Q. Yeah. So you're speculating, then, that some type of</p> <p>25 flood irrigation happened at and around the Cow Palace</p>	<p style="text-align: right;">Page 32</p> <p>1 A. I reviewed, I relied -- I reviewed the EPA report.</p> <p>2 Q. That's it?</p> <p>3 A. That was what I focused my review on.</p> <p>4 Q. Nothing else?</p> <p>5 A. Other than what I had previously told you that I looked</p> <p>6 at just very briefly before starting my review of the</p> <p>7 EPA report.</p> <p>8 Q. Tell me again what you looked at very briefly before</p> <p>9 you did your evaluation?</p> <p>10 A. Comments that were prepared by Arcadis, and then the</p> <p>11 comments that were prepared by Stuart Turner. But I</p> <p>12 did not refer to them subsequently during my review of</p> <p>13 the report.</p> <p>14 Q. Yeah, I noticed they're not referred to. That's it,</p> <p>15 that's the complete universe of documents that you</p> <p>16 looked at?</p> <p>17 A. Yes.</p> <p>18 Q. With respect to your rebuttal report, what documents</p> <p>19 did you review in putting together your rebuttal</p> <p>20 report?</p> <p>21 A. They're listed. I should note that the Schuman</p> <p>22 reference is a mistake, that I did not review that in</p> <p>23 preparing my rebuttal report. Again, I looked at the</p> <p>24 Arcadis reports that are referenced, the Coeur d'Alene</p> <p>25 monitoring report for the third quarter. My focus was</p>
<p style="text-align: right;">Page 31</p> <p>1 facility?</p> <p>2 A. No.</p> <p>3 Q. What are you doing, then?</p> <p>4 A. I am simply pointing out that it is a gap in EPA's</p> <p>5 evaluation, because it could have occurred in that</p> <p>6 area.</p> <p>7 Q. A volcano could have erupted there, too, right?</p> <p>8 MR. CARTER: I'll object, that's not a question.</p> <p>9 A. Volcano --</p> <p>10 Q. Anything could have happened there, right?</p> <p>11 A. A volcano --</p> <p>12 Q. Let me strike that.</p> <p>13 A. Okay.</p> <p>14 Q. You have no data, no direct data to show that flood</p> <p>15 irrigation happened at the Cow Palace property prior to</p> <p>16 Cow Palace's operations, do you?</p> <p>17 A. I wasn't asked to evaluate that.</p> <p>18 Q. That's not my question. You don't have any data, do</p> <p>19 you?</p> <p>20 A. No.</p> <p>21 Q. So what I would like to do right now is for you to tell</p> <p>22 me the complete list of documents that you reviewed in</p> <p>23 putting together your initial expert report.</p> <p>24 A. My initial expert report?</p> <p>25 Q. Yes.</p>	<p style="text-align: right;">Page 33</p> <p>1 to look at maps that had their monitoring well</p> <p>2 locations on them so that I could then correlate those</p> <p>3 to the well logs that were in the report and get a</p> <p>4 sense of the methodology and the stratigraphy in those</p> <p>5 areas.</p> <p>6 Q. So you didn't look at those at all before doing your</p> <p>7 initial report and critiquing the EPA evaluations of</p> <p>8 the lithology in the area?</p> <p>9 A. No, I didn't. So the three Arcadis reports listed, I</p> <p>10 looked at the Quality Assurance Project Plan that was</p> <p>11 prepared by EPA.</p> <p>12 Q. For your rebuttal report, but not for the original</p> <p>13 expert report?</p> <p>14 A. I didn't look at it for the original expert report.</p> <p>15 Q. As a scientist, isn't that the kind of thing you would</p> <p>16 want to review before critiquing a scientific study?</p> <p>17 A. I was, again, I was looking, I was asked to review what</p> <p>18 was in the EPA report, and that's what I did.</p> <p>19 Q. And isn't the quality assurance plan an important part</p> <p>20 of that report?</p> <p>21 A. Yes, it does form the basis of the report. It's</p> <p>22 referenced and discussed in Appendix E and then, like I</p> <p>23 said, I had assistance from Mr. Naylor and Erik had</p> <p>24 reviewed the Quality Assurance Project Plan.</p> <p>25 Q. But you hadn't?</p>

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<p style="text-align: right;">Page 34</p> <p>1 A. I hadn't.</p> <p>2 Q. And I looked at the Zuroske report.</p> <p>3 MR. CARTER: To clarify, that's with reference to</p> <p>4 your rebuttal, not your initial.</p> <p>5 A. That's correct. Yes.</p> <p>6 Q. That's what we're asking about right now is the</p> <p>7 rebuttal.</p> <p>8 A. Yeah.</p> <p>9 Q. So this is the complete universe of documents that</p> <p>10 you've reviewed about Cow Palace?</p> <p>11 A. That's correct.</p> <p>12 Q. Handing you what's been marked as Exhibit 324 in this</p> <p>13 case, the EPA report in this case without all of the</p> <p>14 appendices, did you review --</p> <p>15 MR. CARTER: Counsel, I'd object to the</p> <p>16 introduction of that without the appendices. The</p> <p>17 appendices are referenced frequently within Mr. Maul's</p> <p>18 report.</p> <p>19 MR. TEBBUTT: Sorry, it's already been introduced,</p> <p>20 it's already Exhibit 324.</p> <p>21 MR. CARTER: In the interest of completeness, as</p> <p>22 counsel have e-mailed previously, we've brought a clean</p> <p>23 copy of the report that includes all of the appendices.</p> <p>24 MR. TEBBUTT: Okay. You can do what you want for</p> <p>25 it, but for right now we're going to go with</p>	<p style="text-align: right;">Page 36</p> <p>1 Palace facility, right?</p> <p>2 MR. CARTER: I'll object. That's ambiguous. What</p> <p>3 boring logs are you referring to?</p> <p>4 Q. You didn't look at any boring logs in doing your</p> <p>5 rebuttal report of Dr. Shaw or Dr. Erickson, correct?</p> <p>6 A. No. I said that I did.</p> <p>7 Q. Oh. You did?</p> <p>8 A. Yeah.</p> <p>9 Q. Which ones did you look at?</p> <p>10 A. I looked at the boring logs. I looked at boring logs</p> <p>11 that were contained in the Arcadis report.</p> <p>12 Q. Okay.</p> <p>13 A. For the monitoring wells.</p> <p>14 Q. Handing you what's been marked as Exhibit 332, are</p> <p>15 those some of the boring logs that you reviewed? Have</p> <p>16 you seen those before?</p> <p>17 A. No, no.</p> <p>18 Q. Okay. So you didn't look at those. I'm going to hand</p> <p>19 you what's been marked as Exhibit 333, and ask you,</p> <p>20 there is four, a couple pages of color maps. Did you</p> <p>21 review any of those maps from any of the Arcadis</p> <p>22 reports in doing your rebuttal report for Dr. Shaw or</p> <p>23 Dr. Erickson -- or Mr. Erickson. Excuse me.</p> <p>24 A. I looked at a potentiometric surface map. I don't</p> <p>25 recall whether -- actually, I think I did. Actually, I</p>
<p style="text-align: right;">Page 35</p> <p>1 Exhibit 324.</p> <p>2 A. Excuse me, could you show me what this is, please?</p> <p>3 Q. (By Mr. Tebbutt) The EPA report.</p> <p>4 A. This is the EPA report?</p> <p>5 Q. Yeah, from 2013. Updated 2013 report.</p> <p>6 A. Okay.</p> <p>7 Q. The references on pages 84 through 90 of Exhibit 324.</p> <p>8 Did you review any of those references in critiquing</p> <p>9 the EPA report?</p> <p>10 A. No.</p> <p>11 Q. And so EPA, the EPA report has six pages of references</p> <p>12 backing up their particular report; you saw that?</p> <p>13 MR. CARTER: I'll object, that misstates the</p> <p>14 document.</p> <p>15 A. I saw the pages of references.</p> <p>16 Q. Yeah. Six pages?</p> <p>17 A. Uh-huh.</p> <p>18 Q. And you have no references for your critique, correct?</p> <p>19 MR. CARTER: Objection, misstates prior testimony.</p> <p>20 A. I --</p> <p>21 Q. There is none in your expert report, are there?</p> <p>22 A. That's correct. That's correct.</p> <p>23 Q. So just to be clear, in your critique of, of your</p> <p>24 rebuttal report on Dr. Shaw and Dr. Erickson, you</p> <p>25 didn't look at any of the boring logs for the Cow</p>	<p style="text-align: right;">Page 37</p> <p>1 looked at the third and fourth quarter potentiometric</p> <p>2 surface maps.</p> <p>3 Q. Basically what we call contour maps?</p> <p>4 A. They're called ground or potentiometric contour maps.</p> <p>5 Q. Okay. But you didn't do that before critiquing the EPA</p> <p>6 study, correct?</p> <p>7 A. That is correct.</p> <p>8 MR. CARTER: That misstates prior testimony.</p> <p>9 Q. I don't think so. We've got the answer, we're good to</p> <p>10 go.</p> <p>11 MR. CARTER: Trying to keep the distinction</p> <p>12 between the initial report and the rebuttal report.</p> <p>13 Q. Sir, don't the contour maps provided -- there are two</p> <p>14 contour maps, one for the third quarter 2013, Figure</p> <p>15 15, and Figure 15 in the fourth quarter of 2013 Arcadis</p> <p>16 report that are shown in Exhibit 333 -- don't those</p> <p>17 confirm the statements made in the EPA report about</p> <p>18 groundwater flow direction?</p> <p>19 MR. CARTER: I'll object, lack of foundation.</p> <p>20 A. The EPA report did not contain groundwater contours.</p> <p>21 Q. I understand that. But don't these contour maps</p> <p>22 confirm the findings in the EPA report about the</p> <p>23 groundwater flow direction at and around the Cow Palace</p> <p>24 property?</p> <p>25 MR. CARTER: I'll object again. Lack of</p>

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<p style="text-align: right;">Page 38</p> <p>1 foundation.</p> <p>2 A. I think that there is a general similarity to the</p> <p>3 conclusions drawn in the EPA report in that it, it</p> <p>4 stated generally that groundwater flows from the</p> <p>5 southeast -- or excuse me, from the northeast away from</p> <p>6 the Rattlesnake Hills to the southwest.</p> <p>7 The contours in the Arcadis report provide a</p> <p>8 significant amount of additional precision.</p> <p>9 Q. All right. They do confirm the EPA's conclusions in</p> <p>10 their report --</p> <p>11 MR. CARTER: Objection. Asked and answered.</p> <p>12 Q. Let me finish my question, please.</p> <p>13 (Continuing) -- about the groundwater directional</p> <p>14 flow at and around Cow Palace, don't they?</p> <p>15 MR. CARTER: Objection. Asked and answered.</p> <p>16 A. I think that they are consistent with the EPA; I think</p> <p>17 confirm is too strong a word.</p> <p>18 Q. Consistent, we'll take consistent for today's purposes.</p> <p>19 Did you ever look at the groundwater monitoring</p> <p>20 results for the dairy wells?</p> <p>21 MR. CARTER: Objection. That's vague and</p> <p>22 ambiguous.</p> <p>23 Q. For Cow Palace that Arcadis has located as part of the</p> <p>24 OAC?</p> <p>25 A. No.</p>	<p style="text-align: right;">Page 40</p> <p>1 would hand it back to the witness, please.</p> <p>2 MR. CARTER: Counsel, are you representing that</p> <p>3 these are summaries of the reports compiled under the</p> <p>4 OAC?</p> <p>5 MR. TEBBUTT: Yes.</p> <p>6 MR. CARTER: Okay. All right.</p> <p>7 Q. (By Mr. Tebbutt) If you'll turn to YVD-10, sir.</p> <p>8 A. On the table?</p> <p>9 Q. Yes. On the table.</p> <p>10 A. Okay.</p> <p>11 Q. Do you see those numbers for nitrates, ranging from</p> <p>12 September 2013 at 95 parts per million nitrate?</p> <p>13 A. Uh-huh, yes.</p> <p>14 Q. And there are three other values for the succeeding</p> <p>15 quarters, do you see those, the succeeding quarter of</p> <p>16 December, 2013, 86.9 milligrams per liter nitrate?</p> <p>17 A. Yes.</p> <p>18 MR. CARTER: Counsel, I'll object. Are you</p> <p>19 representing that each subsequent line represents a</p> <p>20 different quarter?</p> <p>21 MR. TEBBUTT: It's right there in the summaries.</p> <p>22 MR. CARTER: Where?</p> <p>23 MR. TEBBUTT: Take a look at it, the date, under</p> <p>24 date, see where it says date?</p> <p>25 MR. CARTER: I see. Thanks.</p>
<p style="text-align: right;">Page 39</p> <p>1 Q. Never?</p> <p>2 A. No.</p> <p>3 Q. Still today you haven't looked at them?</p> <p>4 A. No.</p> <p>5 Q. All right. As part of Exhibit 333, introduced</p> <p>6 yesterday, they're summaries of the well results</p> <p>7 collected by Arcadis as part of the AOC.</p> <p>8 A. Uh-huh.</p> <p>9 Q. Do you see those?</p> <p>10 A. Uh-huh.</p> <p>11 Q. I'd like you to take a look at YVD-10. Do you see</p> <p>12 YVD-10?</p> <p>13 A. Not yet. There it is.</p> <p>14 Q. All right.</p> <p>15 MR. CARTER: Counsel, can I have a moment to</p> <p>16 review this document, please?</p> <p>17 MR. TEBBUTT: By all means.</p> <p>18 MR. CARTER: I'll object to the extent that these</p> <p>19 tabulated results were -- what purports to be tabulated</p> <p>20 results don't contain Bates numbers and haven't, to our</p> <p>21 knowledge, been previously produced.</p> <p>22 MR. TEBBUTT: Well, they were produced yesterday</p> <p>23 and introduced while your counsel was sitting here.</p> <p>24 Your objection is noted for the record and we'll move</p> <p>25 through and ask some questions about this. If you</p>	<p style="text-align: right;">Page 41</p> <p>1 Q. (By Mr. Tebbutt) You see those four values there, they</p> <p>2 range from a low of 77.6 up to the 95 that we just</p> <p>3 discussed for nitrates. Do you see those?</p> <p>4 A. Yes.</p> <p>5 Q. And then let's take a look at the -- compare that to</p> <p>6 the first page of Exhibit 333, the map, the contour</p> <p>7 map. First page --</p> <p>8 A. I'm sorry.</p> <p>9 Q. We can use multiple places if we want.</p> <p>10 A. Okay.</p> <p>11 Q. See where YVD-10 is?</p> <p>12 A. Yes.</p> <p>13 Q. And that's directly south of the Cow Palace facility,</p> <p>14 do you see that this -- I'll represent to you this is</p> <p>15 the Cow Palace facility.</p> <p>16 A. Yes.</p> <p>17 Q. Okay. Let's just keep that map right there and let's</p> <p>18 look at YVD-15. Do you see that, on the same page, as</p> <p>19 part of Exhibit 333?</p> <p>20 A. Yes.</p> <p>21 Q. And you see the nitrate levels for YVD-15 ranging from</p> <p>22 a low of 47.4 up to 88.1 milligrams per liter of</p> <p>23 nitrate?</p> <p>24 A. Yes.</p> <p>25 Q. And those are for those successive four quarters which</p>



<p style="text-align: right;">Page 42</p> <p>1 have been made available to the plaintiffs. You can</p> <p>2 see the dates in that summary?</p> <p>3 A. Uh-huh.</p> <p>4 Q. YVD-15.</p> <p>5 A. Yes.</p> <p>6 Q. You see YVD-15 on the map?</p> <p>7 A. I do.</p> <p>8 Q. And that's just further south of YVD-10, correct?</p> <p>9 A. Yes.</p> <p>10 Q. Now, let's take a look on the next page, one of the</p> <p>11 pages of Exhibit 333, I believe it's the last page of</p> <p>12 Exhibit 333. You see the entry for DC-04?</p> <p>13 A. Yes.</p> <p>14 Q. And you see the nitrate results for DC-04 ranging from</p> <p>15 26 parts per million nitrate up to 37.3?</p> <p>16 A. Yes.</p> <p>17 Q. Did you see those. Okay. And you see where DC-04 is</p> <p>18 on the map, the first page of Exhibit 333?</p> <p>19 A. I haven't looked DC-04. I guess is that -- it's right</p> <p>20 there.</p> <p>21 Q. All right. That is at the southern end of the Cow</p> <p>22 Palace property?</p> <p>23 A. I don't see the boundary of the Cow Palace property</p> <p>24 identified on the figure.</p> <p>25 Q. Okay. See the black lines, the heavy black lines</p>	<p style="text-align: right;">Page 44</p> <p>1 column. It appears to be. And what was the, the</p> <p>2 question about the range again?</p> <p>3 Q. Just that you see them. That it confirms that the</p> <p>4 range is from 38.9 to 46.4?</p> <p>5 A. Yes.</p> <p>6 Q. Okay. Let's turn the page back once to DC-03. Do you</p> <p>7 see the nitrate levels for DC-03 ranging from a low of</p> <p>8 166 up to 34 milligrams per liter of nitrate; do you</p> <p>9 see those?</p> <p>10 A. Yes, I do.</p> <p>11 Q. And you've never seen those before today; is that</p> <p>12 correct?</p> <p>13 A. That's correct.</p> <p>14 Q. Have you ever looked at the groundwater hydrographs</p> <p>15 prepared by Arcadis for the, I'm going to call them the</p> <p>16 cluster dairies? Are you familiar with the term</p> <p>17 cluster dairies?</p> <p>18 A. Yes, I am.</p> <p>19 Q. You know what I'm talking about. I'm talking about the</p> <p>20 Cow Palace Dairy, the Bosma Dairies and the DeRuyter</p> <p>21 Dairies that are defendants in this case that you're</p> <p>22 working for the dairies on. Do you understand that?</p> <p>23 A. Yes.</p> <p>24 Q. Have you ever seen the hydrographs that have been</p> <p>25 prepared by Arcadis?</p>
<p style="text-align: right;">Page 43</p> <p>1 around that purport to encompass an area on</p> <p>2 Exhibit 333?</p> <p>3 A. Yes.</p> <p>4 Q. And looking at the legend for Figure 15 of Exhibit 333,</p> <p>5 you see the legend where it says the approximate</p> <p>6 boundary of the dairy facilities with that black line?</p> <p>7 A. Yes.</p> <p>8 Q. Okay. And I'll represent to you that -- well, let's</p> <p>9 see. The red area, you see the red lines kind of in</p> <p>10 the middle of Exhibit 333?</p> <p>11 A. Yes.</p> <p>12 Q. Those are the Cow Palace property lines. Do you see</p> <p>13 that it didn't say that specifically, but I'll</p> <p>14 represent to you that within that red area is the</p> <p>15 ownership of the Cow Palace property. Do you see that?</p> <p>16 A. I see the red lines, yes.</p> <p>17 Q. I'm going to ask you, then, just to acknowledge DC-03</p> <p>18 as we go back to the chart and see DC-03, just off to</p> <p>19 the southwest of the edge of the Cow Palace property.</p> <p>20 A. Yes.</p> <p>21 Q. Okay. Let's take a look at DC-03D to begin with. Do</p> <p>22 you see the nitrate levels for DC-03D ranging from 38.9</p> <p>23 to 46.4 micrograms per liter in the nitrate column</p> <p>24 here?</p> <p>25 A. Yeah. I'm just confirming that that's the nitrate</p>	<p style="text-align: right;">Page 45</p> <p>1 A. For the cluster dairies?</p> <p>2 Q. Yes.</p> <p>3 A. No.</p> <p>4 Q. Handing you what's been marked as Exhibit 334 from</p> <p>5 yesterday's deposition --</p> <p>6 MR. CARTER: Counsel, I'd like to take a minute to</p> <p>7 look at that.</p> <p>8 Q. Actually, two days ago, Mr. Melvin's deposition.</p> <p>9 MR. CARTER: Counsel, you are representing that</p> <p>10 these are excerpts from which Arcadis report?</p> <p>11 MR. TEBBUTT: They're identified on each page.</p> <p>12 MR. CARTER: I don't see the name of the report</p> <p>13 that they come from.</p> <p>14 MR. TEBBUTT: Well, they came from you, they were</p> <p>15 provided, as you can see, there's Bates numbers on each</p> <p>16 page, they came from you guys.</p> <p>17 MR. CARTER: Right. And do you know --</p> <p>18 MR. TEBBUTT: What are you objecting to?</p> <p>19 MR. CARTER: I'm asking you what the -- what</p> <p>20 Arcadis report these are taken from.</p> <p>21 MR. TEBBUTT: I can't tell you right at the</p> <p>22 moment. But they're your documents.</p> <p>23 MR. CARTER: I understand.</p> <p>24 Q. (By Mr. Tebbutt) Mr. Mullen, I see you standing up, do</p> <p>25 you need to take a break?</p>





<p style="text-align: right;">Page 46</p> <p>1 A. No, I just want to stretch.</p> <p>2 Q. That's fine. By the way, if you need to take a break,</p> <p>3 please let me know, we'll accommodate that. The only</p> <p>4 thing is you can't take a break while a question is</p> <p>5 pending. Fair?</p> <p>6 MR. CARTER: Let's plan on taking a break in 10 or</p> <p>7 15 minutes, I'll let you determine when you want that</p> <p>8 to be. But we've been at it over an hour now.</p> <p>9 Q. Okay. The hydrographic data you now see in front of</p> <p>10 you, take a look at each page and just kind of</p> <p>11 familiarize yourself with each one of the various</p> <p>12 wells. Have you had a chance to review those?</p> <p>13 A. I've looked at them. Yes.</p> <p>14 Q. Okay. Tell me, sir, in your words, are those, is that</p> <p>15 the kind of data that you would look at as a</p> <p>16 hydrogeologist to determine what the rate of recharge</p> <p>17 would be for groundwater in an area if you were doing a</p> <p>18 hydrogeologic investigation?</p> <p>19 MR. CARTER: Objection. Lack of foundation. It</p> <p>20 also exceeds the scope of the opinions that have been</p> <p>21 rendered in this case.</p> <p>22 A. Yeah, I wouldn't be able to answer that without</p> <p>23 understanding what the objectives of the data were and</p> <p>24 the representations that were trying to be made.</p> <p>25 Q. Okay. But this is, in your field of expertise, this is</p>	<p style="text-align: right;">Page 48</p> <p>1 exceeds the opinions that have been expressed in the</p> <p>2 reports and Mr. Maul has been asked to opine upon.</p> <p>3 A. I'm sorry. Could you repeat the question? I'm not</p> <p>4 sure I understood.</p> <p>5 Q. This kind of information, hydrographic information and</p> <p>6 groundwater fluctuations, that's one kind of data you</p> <p>7 would collect to determine how quickly groundwater is</p> <p>8 being impacted by surficial activities. Fair enough?</p> <p>9 MR. CARTER: I'll object. Same objections. Asked</p> <p>10 and answered.</p> <p>11 MR. TEBBUTT: He didn't answer it. I'm rephrasing</p> <p>12 the question.</p> <p>13 MR. CARTER: I believe he did two iterations ago.</p> <p>14 A. I'm sorry. Would you just -- back and forth here.</p> <p>15 Q. Yeah. I know it can get confusing.</p> <p>16 A. I want to answer your question.</p> <p>17 Q. I understand that's part of a lawyer's job is to try to</p> <p>18 confuse the witness. I understand.</p> <p>19 A. Okay.</p> <p>20 Q. That's not what I'm trying to do here.</p> <p>21 MR. TEBBUTT: Phyllis, can read back the last</p> <p>22 question?</p> <p>23 (THE REPORTER READ BACK THE PREVIOUS</p> <p>24 QUESTION.)</p> <p>25 A. I don't believe that short-term fluctuations of</p>
<p style="text-align: right;">Page 47</p> <p>1 the kind of information that is the kind of data</p> <p>2 collection that would be important in making a</p> <p>3 determination or a conclusion or an opinion about the</p> <p>4 rate of recharge in a certain area, is this one type of</p> <p>5 information you would look at?</p> <p>6 MR. CARTER: Objection. Lack of foundation.</p> <p>7 A. That, yeah, that would be -- I'm not sure exactly how</p> <p>8 this would necessarily relate to an evaluation of</p> <p>9 recharge.</p> <p>10 Q. Okay. Or perhaps --</p> <p>11 A. What I see here is I see water level data.</p> <p>12 Q. Yeah.</p> <p>13 A. And I see it also on the graph, then, barometric</p> <p>14 pressure.</p> <p>15 Q. Right. And these are for just a period of about three</p> <p>16 months, right, from October to, well, even November,</p> <p>17 only a period of about a month, right?</p> <p>18 A. A little over a month.</p> <p>19 Q. Yeah. And so as an expert in hydrogeology that you</p> <p>20 purport to be, looking at groundwater fluctuations over</p> <p>21 a short period of time would be the kind of information</p> <p>22 you would look at to determine whether surficial</p> <p>23 impacts are happening to groundwater on a short-term or</p> <p>24 a longer-term basis; is that fair enough?</p> <p>25 MR. CARTER: I'll object. Lack of foundation and</p>	<p style="text-align: right;">Page 49</p> <p>1 groundwater levels are necessarily indicative of</p> <p>2 potential surface impacts.</p> <p>3 Q. Right. But it's one piece of information that you</p> <p>4 would look at to help make that determination, wouldn't</p> <p>5 you?</p> <p>6 MR. CARTER: Objection. Same objections as</p> <p>7 before.</p> <p>8 A. It's, it would be part of characterizing the aquifer --</p> <p>9 or determining aquifer characteristics.</p> <p>10 Q. And wouldn't this help with determining the speed and</p> <p>11 the time of groundwater recharge?</p> <p>12 MR. CARTER: Objection. Lack of foundation,</p> <p>13 exceeds the opinions that have been expressed in this</p> <p>14 case.</p> <p>15 A. And I'm just seeing this information for the first</p> <p>16 time, and that's a pretty complicated question, so I</p> <p>17 don't think that I can just spin off an opinion</p> <p>18 regarding that without more extensive evaluation.</p> <p>19 Q. Okay. Would temperature data in the groundwater be the</p> <p>20 kind of information that you would look at in</p> <p>21 evaluating how long recharge or impacts from surficial</p> <p>22 activity might influence groundwater levels, or</p> <p>23 groundwater?</p> <p>24 MR. CARTER: Objection. Lack of foundation and</p> <p>25 exceeds the opinions that have been rendered.</p>



<p style="text-align: right;">Page 50</p> <p>1 A. I think there were a couple of different questions or 2 parameters involved in that question as well, so if I 3 could -- 4 Q. Let's break it down. Break it down into what you 5 think -- 6 A. Could you read the question back to me, please. 7 (THE REPORTER READ BACK THE PREVIOUS 8 QUESTION.) 9 A. So the temperature data could be -- excuse me -- 10 temperature data could be useful in evaluating 11 potential mechanisms for groundwater recharge and the 12 potential for impacts from surface activities. 13 Q. Right. And that temperature information could also 14 help make determinations of how much time you might 15 think it takes for surficial activities to influence 16 groundwater, correct? Is that a fair statement? 17 MR. CARTER: Same objections. Lack of foundation, 18 exceeds the scope of opinions that have been rendered. 19 A. And again, without looking, looking at that in the 20 context of a number of different inputs, it could be 21 one input to answering that question, and I don't have 22 enough information and it would take some time to 23 understand how that fit in with that type of 24 evaluation. 25 Q. Sure. As a scientist, you want to look at as many</p>	<p style="text-align: right;">Page 52</p> <p>1 problem, right? At least a hypothetical, a conceptual 2 problem, a conceptual model. And in order to fill out 3 that conceptual model, we want to look at as much data 4 as possible, right? 5 MR. CARTER: Objection. What model are you 6 speaking about? 7 Q. Conceptually scientifically. 8 MR. CARTER: Objection. It's ambiguous what model 9 you are trying to speak about. Are you trying to speak 10 of Cow Palace as a causation or are you trying to speak 11 about the EPA reports' conclusions which are the 12 subject of this deposition. 13 MR. TEBBUTT: This is a general question at this 14 point. 15 MR. CARTER: I understand. I'm seeking 16 clarification of the question because it's ambiguous. 17 Q. I'll ask you the question, do you think it's ambiguous? 18 A. A little bit. I don't understand quite where we're 19 going to. 20 Q. The big picture, the 30,000-foot picture, as a 21 scientist, when you see -- you're asked to evaluate a 22 potential problem, let's use Cow Palace as the example, 23 you're looking to determine whether Cow Palace is a 24 source of contamination of nitrate to groundwater. 25 There are a lot of different pieces that you would want</p>
<p style="text-align: right;">Page 51</p> <p>1 pieces of the puzzle as possible, right? 2 A. Yeah, you would need to have a good problem statement 3 and conceptual model. 4 Q. Right. And the hydrographic information we just looked 5 at would be one piece of the puzzle? 6 A. It could be. 7 Q. And the soil boring logs that we looked at would be 8 another piece of the puzzle? 9 A. Uh-huh, yes. 10 Q. And the groundwater monitoring results would be another 11 piece of the puzzle? 12 A. Yes. 13 Q. And contour maps would be another piece of the puzzle? 14 A. Relevant, yes. 15 MR. CARTER: I'll object. It's ambiguous as to 16 what the puzzle is. 17 Q. And the nitrogen isotope testing performed by EPA would 18 be another type of information that you would look at 19 in filling out what that puzzle is? 20 MR. CARTER: Objection. That's ambiguous as to 21 what the question -- the overarching question is, the 22 puzzle, so to speak. 23 Q. You understand my question, don't you? 24 A. Could you re-ask me the question? 25 Q. Sure. I mean the big puzzle is, right, we have a</p>	<p style="text-align: right;">Page 53</p> <p>1 to look at, right? So you want to start with a 2 conceptual model at some point. Right? You have some 3 information, and from that you distill that to a 4 conceptual model. Fair enough? 5 MR. CARTER: Objection. Lack of foundation and 6 goes beyond the opinions that have been expressed in 7 this case. 8 A. I wasn't asked to evaluate whether Cow Palace was a 9 source of groundwater contamination for purposes of the 10 report that I prepared. 11 Q. Not for your rebuttal report? 12 A. Nor for my rebuttal report. 13 Q. Yet you offer numerous opinions about why Dr. Shaw and 14 Mr. Erickson don't have enough data to support their 15 opinions, don't you, in your rebuttal report? 16 MR. CARTER: Objection. That misstates the 17 rebuttal report. 18 Q. Don't you? Don't you critique Dr. Shaw's and Mr. 19 Erickson's conclusions? 20 A. I critiqued their conclusions, that's correct. 21 Q. And you said they didn't have enough data, among other 22 things, among other critiques? 23 A. I said that EPA -- I -- what I did was when I looked at 24 their reports, I looked specifically at their reliance 25 upon the EPA report. I think that was pretty clear in</p>





<p style="text-align: right;">Page 54</p> <p>1 my rebuttal report.</p> <p>2 Q. That's all you, all your critique is --</p> <p>3 A. That was --</p> <p>4 Q. Just a second, let me ask my question.</p> <p>5 A. I'm sorry.</p> <p>6 Q. So your critique of Dr. Shaw's and Mr. Erickson's</p> <p>7 reports are only with respect to their reliance on the</p> <p>8 EPA report?</p> <p>9 A. Primarily.</p> <p>10 Q. What else besides that? You say primarily.</p> <p>11 A. Primarily.</p> <p>12 Q. Right. What else is your critique based on?</p> <p>13 A. There was, I believe, one or two references to other</p> <p>14 information. You would have to -- I would have look at</p> <p>15 my report.</p> <p>16 Q. Yeah, we'll get to that.</p> <p>17 A. Uh-huh.</p> <p>18 Q. Again, we were just about to talk about groundwater</p> <p>19 temperature information. Groundwater temperature</p> <p>20 information could help determine how -- a piece of the</p> <p>21 puzzle, again -- how fast surficial activities might be</p> <p>22 impacting groundwater; would be fair to say?</p> <p>23 MR. CARTER: Same objection. Lack of foundation,</p> <p>24 exceeds the opinions.</p> <p>25</p>	<p style="text-align: right;">Page 56</p> <p>1 MR. CARTER: With that.</p> <p>2 Q. Correct. So let's take a look, we talked earlier about</p> <p>3 DC-03, and DC-03 had nitrates as high as, I believe,</p> <p>4 200 and -- let's get this accurate, since we're being</p> <p>5 careful about this thing -- as high as 234 parts per</p> <p>6 million nitrate. We have over a 11-degree centigrade</p> <p>7 swing in the period of three months. Do you see that?</p> <p>8 A. From September to December?</p> <p>9 Q. Yep.</p> <p>10 A. An 11.04 difference in temperature.</p> <p>11 Q. Right. Degrees C?</p> <p>12 A. Uh-huh.</p> <p>13 Q. That's a large difference of temperature for</p> <p>14 groundwater, isn't it, in a short period of time?</p> <p>15 MR. CARTER: Objection. Lack of foundation and</p> <p>16 exceeds the opinions that have been expressed.</p> <p>17 A. I don't have any basis or point of reference to say</p> <p>18 that it's to evaluate the magnitude of that swing. I</p> <p>19 can see that it, assuming that these are accurate, that</p> <p>20 there is an 11.04 degree difference between September</p> <p>21 and December.</p> <p>22 Q. And so what other data points are, or information do</p> <p>23 you need to help determine whether these large swings</p> <p>24 in temperature are a result of influences, relatively</p> <p>25 fast influences from surficial activities?</p>
<p style="text-align: right;">Page 55</p> <p>1 A. Could you read the question back to me again, please?</p> <p>2 (THE REPORTER READ BACK THE PREVIOUS</p> <p>3 QUESTION.)</p> <p>4 A. What, what are you referring to by surface activities?</p> <p>5 I'm, I'm still not quite sure I really understand the</p> <p>6 question.</p> <p>7 Q. Well, recharge from irrigation practices, irrigation</p> <p>8 canals, those sorts of things. Surficial activities</p> <p>9 being water at the surface impacting groundwater.</p> <p>10 A. Could that be reflected in temperature variations?</p> <p>11 Q. Yes.</p> <p>12 A. Is that the question?</p> <p>13 Q. Yes.</p> <p>14 A. Yeah.</p> <p>15 Q. Handing you what's been marked as Exhibit 335 in this</p> <p>16 case during the Melvin deposition, this is a summary of</p> <p>17 the temperature fluctuations from all of the Arcadis</p> <p>18 reports and we will, just to anticipate your objection,</p> <p>19 represent that these are an accurate summary of the</p> <p>20 Arcadis data and they were not objected to by your</p> <p>21 co-counsel two days ago.</p> <p>22 MR. CARTER: Okay. I'm still going to object, not</p> <p>23 Bates numbered, hasn't been produced, and it's your</p> <p>24 representation that these data are accurate.</p> <p>25 Q. Correct.</p>	<p style="text-align: right;">Page 57</p> <p>1 MR. CARTER: Same objections.</p> <p>2 Q. What depth to water, for instance, would be helpful for</p> <p>3 DC-03 to help make that determination of influences?</p> <p>4 MR. CARTER: Same objections.</p> <p>5 A. There's a number of factors that could come in to play</p> <p>6 relative to what is the, what is causing the difference</p> <p>7 in temperature.</p> <p>8 Q. What factors?</p> <p>9 A. It could be depth of water could be a factor, it could</p> <p>10 be the difference in the hydrogeologic relationship --</p> <p>11 hydraulic relationship between different water-bearing</p> <p>12 zones, it could be the source of the recharge.</p> <p>13 Q. Uh-huh. You've said in your rebuttal report that there</p> <p>14 is no evidence of saturated conditions in the vadose</p> <p>15 zones between the dairy facilities and the groundwater</p> <p>16 tables. Is that a fair assessment of what you said in</p> <p>17 your sum of your rebuttal to Dr. Shaw, Dr. Shaw's</p> <p>18 report?</p> <p>19 MR. CARTER: I'll object. Where are you referring</p> <p>20 to?</p> <p>21 Q. Is that a fair assessment, Mr. Maul?</p> <p>22 MR. CARTER: Same objection. Where are you</p> <p>23 referring to?</p> <p>24 Q. I understand that's your objection. I'm asking Mr.</p> <p>25 Maul if he understands right now without looking at his</p>



<p style="text-align: right;">Page 58</p> <p>1 report.</p> <p>2 MR. CARTER: I'm repeating the same objection.</p> <p>3 Q. That's fine. Do you understand my question? Can you</p> <p>4 answer it, please?</p> <p>5 A. Regarding evidence of perched groundwater in the vadose</p> <p>6 zone? I had seen no evidence of perched groundwater in</p> <p>7 the vadose zone.</p> <p>8 Q. You also rebuttaled Dr. Shaw by saying that there was,</p> <p>9 I believe you said it would take many years or decades</p> <p>10 for incident precipitation or irrigation and any</p> <p>11 accompanying nitrate to reach groundwater if it ever</p> <p>12 does at all. And that's page 16 of your rebuttal</p> <p>13 report.</p> <p>14 A. I'm sorry, they're all page 16, we had a mistake in the</p> <p>15 printing.</p> <p>16 Q. Oh. Okay.</p> <p>17 MR. CARTER: I'll object.</p> <p>18 A. So maybe you could --</p> <p>19 Q. I'll point you to it.</p> <p>20 A. Direct me.</p> <p>21 Q. It's in reference to -- or in response to No. 20. I</p> <p>22 believe it's No. 20, referring to the Shaw report,</p> <p>23 paragraph 20.</p> <p>24 A. Uh-huh. Uh-huh. Right here.</p> <p>25 Q. Yeah.</p>	<p style="text-align: right;">Page 60</p> <p>1 Q. It's right -- just a second. Before you answer, it's</p> <p>2 exactly what he's saying in No. 20.</p> <p>3 MR. CARTER: He says conceivably. He has not</p> <p>4 reviewed any of this data and for you to try to make</p> <p>5 him come to an opinion based on your excerpts from</p> <p>6 various reports we don't have complete copies of, it's</p> <p>7 inappropriate and it goes beyond what was referenced in</p> <p>8 this document.</p> <p>9 MR. TEBBUTT: You have complete copies of them</p> <p>10 because these come from the Arcadis reports.</p> <p>11 MR. CARTER: You haven't presented Mr. Maul with</p> <p>12 those and he previously testified that he hasn't</p> <p>13 reviewed them.</p> <p>14 MR. TEBBUTT: Phyllis, would you read back my</p> <p>15 earlier question, please.</p> <p>16 (THE REPORTER READ BACK THE QUESTION</p> <p>17 ON PAGE 59, LINES 18-22.)</p> <p>18 MR. PALUMBO: Counsel, if Mr. Maul is comfortable</p> <p>19 with this, then I have no objection, but I find you</p> <p>20 standing over the witness to be offensive and</p> <p>21 inappropriate.</p> <p>22 MR. TEBBUTT: I'm not trying -- I don't believe it</p> <p>23 is at all.</p> <p>24 Q. (By Mr. Tebbutt) Do you find it to be offensive or</p> <p>25 inappropriate, Mr. Maul?</p>
<p style="text-align: right;">Page 59</p> <p>1 MR. CARTER: I'll object. After reading this, it</p> <p>2 confirms the objection that that misstates Mr. Maul's</p> <p>3 statement in his report.</p> <p>4 MR. TEBBUTT: I disagree with you.</p> <p>5 Q. You said it can conceivably take many years or decades</p> <p>6 for incident precipitation or irrigation and any</p> <p>7 accompanying nitrate to reach groundwater if it ever</p> <p>8 does at all, correct?</p> <p>9 A. Yes.</p> <p>10 Q. And that was in response to Dr. Shaw saying nitrate</p> <p>11 readily leaches through the unsaturated zone of soil,</p> <p>12 correct?</p> <p>13 A. Yes.</p> <p>14 Q. And is the temperature data that you just looked at --</p> <p>15 let's take a look back at Exhibit 333 for a second.</p> <p>16 Depth to water at DC-03, 85 feet, correct?</p> <p>17 A. Yes.</p> <p>18 Q. Would you expect an 11-degree C temperature variation</p> <p>19 in three months if it took many years or decades for</p> <p>20 influences from irrigation or precipitation practices</p> <p>21 to reach groundwater, would you expect that kind of</p> <p>22 temperature fluctuation so fast?</p> <p>23 MR. CARTER: Objection. Lack of foundation, goes</p> <p>24 beyond the opinions that were expressed.</p> <p>25 A. I --</p>	<p style="text-align: right;">Page 61</p> <p>1 A. I'm fine.</p> <p>2 MR. PALUMBO: He looks like he can defend himself,</p> <p>3 but I think it's inappropriate conduct by an attorney.</p> <p>4 MR. TEBBUTT: Mr. Maul said he's fine. Thank you,</p> <p>5 Mr. Palumbo.</p> <p>6 (THE REPORTER READ BACK THE QUESTION</p> <p>7 QUESTION.)</p> <p>8 A. I'm going to start my answer to that question by saying</p> <p>9 that I, I stand by the statement in my rebuttal report</p> <p>10 that Mr. Shaw presented no data in drawing his</p> <p>11 conclusions, and that there are other potential</p> <p>12 explanations that are absent and not accounted for.</p> <p>13 And with regard --</p> <p>14 Q. I was trying to figure out what you mean by potential</p> <p>15 explanations of what --</p> <p>16 MR. CARTER: Counsel, it goes both ways. He's not</p> <p>17 going to interpret your questions, you can't interrupt</p> <p>18 his answer. Mr. Maul, finish your answer.</p> <p>19 Q. Go ahead.</p> <p>20 A. And that as I previously stated, there could be a</p> <p>21 number of variables that would account for a</p> <p>22 temperature fluctuation, not just one circumstance or</p> <p>23 event.</p> <p>24 Q. What other --</p> <p>25 A. And based upon those variables and the complexity of</p>

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<p style="text-align: right;">Page 62</p> <p>1 that type of issue, I don't believe that I can offer an</p> <p>2 opinion regarding the variation in the temperature that</p> <p>3 you're showing me.</p> <p>4 Q. Okay. What other potential explanations can you have</p> <p>5 for such wide variation swings?</p> <p>6 A. Like I believe I stated in my earlier answer, there</p> <p>7 could be changes in hydrology that happen seasonally</p> <p>8 that can affect recharge relationships between</p> <p>9 different geologic units. It could be a difference</p> <p>10 associated with an irrigation canal and leakage from an</p> <p>11 irrigation canal. There could be a number of different</p> <p>12 circumstances.</p> <p>13 Q. How about a lagoon pond?</p> <p>14 MR. CARTER: Objection. Lack of foundation and</p> <p>15 exceeds the opinions that have been expressed.</p> <p>16 Q. Is that a conceivable explanation for fluctuations in</p> <p>17 the temperatures?</p> <p>18 A. As I've said, there could be a number of different</p> <p>19 circumstances that would come into play that would need</p> <p>20 to be evaluated.</p> <p>21 Q. Okay. You've been to the Cow Palace facility, you've</p> <p>22 been -- have you been to the Bosma facility?</p> <p>23 A. Yes.</p> <p>24 Q. And have you been to the DeRuyter facility?</p> <p>25 A. Yes.</p>	<p style="text-align: right;">Page 64</p> <p>1 facilities?</p> <p>2 A. I can't say with certainty that I saw them all. I</p> <p>3 think we might have not toured one area of the lagoons,</p> <p>4 but I saw lagoons at all three of the facilities.</p> <p>5 Q. Okay. You might not have toured all of the lagoons at</p> <p>6 the Cow Palace facility?</p> <p>7 A. I saw all of the lagoons at the Cow Palace facility.</p> <p>8 Q. And you've seen fields where irrigation practices occur</p> <p>9 at those facilities?</p> <p>10 A. Yes.</p> <p>11 Q. Did you go north of the Cow Palace facilities north</p> <p>12 above the Roza Canal and look at any of the</p> <p>13 agricultural fields or other activities north of the</p> <p>14 Roza Canal and north of the dairies?</p> <p>15 A. I don't recall whether we did or not.</p> <p>16 Q. So based on your tour of the facilities sometime, you</p> <p>17 believe it was August, what would be the likely</p> <p>18 influences to groundwater temperature fluctuations that</p> <p>19 you saw?</p> <p>20 MR. CARTER: Objection. Lack of foundation,</p> <p>21 exceeds the opinions that have been expressed. And I</p> <p>22 continue to object to attempting to have Mr. Maul draw</p> <p>23 new conclusions based on limited data that was</p> <p>24 presented solely today and solely picked by plaintiffs'</p> <p>25 counsel.</p>
<p style="text-align: right;">Page 63</p> <p>1 Q. And were you at each of those facilities on the same</p> <p>2 day in August?</p> <p>3 A. Yes.</p> <p>4 Q. So all three --</p> <p>5 A. I believe it was in August. I --</p> <p>6 Q. All three facilities in one day?</p> <p>7 A. Yes.</p> <p>8 Q. Did you drive over in the morning and leave in the</p> <p>9 evening?</p> <p>10 A. Yes.</p> <p>11 Q. So you spent a total of one day. Do you know how many</p> <p>12 total hours you spent on all three sites?</p> <p>13 A. I would say it was four hours.</p> <p>14 Q. For all three?</p> <p>15 A. Yes.</p> <p>16 Q. So a little over an hour at each facility?</p> <p>17 A. Give or take.</p> <p>18 Q. Fair enough?</p> <p>19 A. Fair enough.</p> <p>20 Q. Okay.</p> <p>21 A. Might have been a little longer than that, but --</p> <p>22 Q. And you've seen the, the irrigation canals, the Roza</p> <p>23 and Sunnyside Irrigation Canals?</p> <p>24 A. Uh-huh, yes.</p> <p>25 Q. And you saw -- did you see all of the lagoons at the</p>	<p style="text-align: right;">Page 65</p> <p>1 Q. Go ahead and answer my question, please.</p> <p>2 A. Like I said, I have not been asked to evaluate that and</p> <p>3 it's not something that, just sitting here for the</p> <p>4 first time seeing this data, that I can offer you a</p> <p>5 scientific opinion about.</p> <p>6 Q. What I'm asking you is what surficial -- you discuss a</p> <p>7 couple of different potential influences to groundwater</p> <p>8 that you would need to know.</p> <p>9 A. Three, I believe.</p> <p>10 Q. And what were those three again?</p> <p>11 A. One would be the potential interaction of other</p> <p>12 geologic formations seasonally; the potential that</p> <p>13 there could be changes in the Roza Canal; the third</p> <p>14 could be the potential for seasonal recharge.</p> <p>15 Q. Seasonal recharge from what, irrigation practices?</p> <p>16 A. Precipitation.</p> <p>17 Q. Okay. What about seasonal recharge from irrigation</p> <p>18 practices, is that another conceivable influence?</p> <p>19 MR. CARTER: Same objections as before.</p> <p>20 A. It's a conceivable influence. I mean it's one that</p> <p>21 could be considered in terms of several.</p> <p>22 Q. Right. And lagoons built into earthen soil, would that</p> <p>23 be another conceivable influence?</p> <p>24 A. Could be a factor, sorry.</p> <p>25 MR. CARTER: Same objections.</p>



<p style="text-align: right;">Page 66</p> <p>1 Q. It could be a factor, was that your answer?</p> <p>2 A. It could be a factor.</p> <p>3 MR. CARTER: Counsel, I'm going to ask for that</p> <p>4 break, if that's all right.</p> <p>5 MR. TEBBUTT: Sure.</p> <p>6 MR. CARTER: Thanks.</p> <p>7 (A SHORT RECESS WAS HAD.)</p> <p>8 MR. TEBBUTT: Mr. Carter, are there no other</p> <p>9 recording devices other than our court reporter here?</p> <p>10 MR. CARTER: Not that I know of.</p> <p>11 Q. (By Mr. Tebbutt) Mr. Maul, you have some familiarity</p> <p>12 with septic systems; is that right, and nitrate impacts</p> <p>13 from septic systems?</p> <p>14 A. Some.</p> <p>15 Q. How many septic systems have you evaluated in your</p> <p>16 career?</p> <p>17 A. Oh, I would say between 10 and 30.</p> <p>18 Q. Okay. And do you know what the highest concentration</p> <p>19 of nitrates possible is from a residential septic</p> <p>20 system?</p> <p>21 A. No.</p> <p>22 Q. Have you ever looked at any literature or done any</p> <p>23 studies to determine what the possible nitrate loading</p> <p>24 is from a residential septic system?</p> <p>25 A. Early in my career I did some evaluation of siting of</p>	<p style="text-align: right;">Page 68</p> <p>1 A. Could you read the question back to me, please?</p> <p>2 (THE REPORTER READ BACK THE QUESTION</p> <p>3 QUESTION.)</p> <p>4 A. Consistent with my earlier testimony, I said that there</p> <p>5 could be -- which what I said, there could be a number</p> <p>6 of different inputs that should be looked at, I was</p> <p>7 pointing out in my critique of the EPA report that that</p> <p>8 would have been something, one of those components to</p> <p>9 address, and that the canals could be a significant</p> <p>10 source of nitrates because of the runoff from cropland</p> <p>11 that they receive.</p> <p>12 (PLAINTIFF EXHIBIT NO. 348 WAS</p> <p>13 MARKED FOR IDENTIFICATION.)</p> <p>14 MR. CARTER: Counsel, I'll object to these. I</p> <p>15 don't see any Bates numbers and I don't know that these</p> <p>16 have been produced to us and --</p> <p>17 MR. TEBBUTT: You're right that this particular</p> <p>18 set doesn't have Bates numbers, but I will represent to</p> <p>19 you that these have been produced to you as part of</p> <p>20 ongoing discovery in this case from the October site</p> <p>21 visit, the Rule 34 site visit.</p> <p>22 MR. CARTER: Okay.</p> <p>23 Q. (By Mr. Tebbutt) Handing you what's been marked as</p> <p>24 Exhibit 348 in this case, if you'll look at the first</p> <p>25 page of 348, Mr. Maul, you can see the nomenclature</p>
<p style="text-align: right;">Page 67</p> <p>1 septic tanks and the potential impact for groundwater</p> <p>2 impacts, but it's been -- that's been a while ago, and</p> <p>3 I don't recall just exactly what the specifics or the</p> <p>4 outcome was.</p> <p>5 Q. Do you have any idea whether a septic system is capable</p> <p>6 of having nitrate contamination, or the presence of</p> <p>7 nitrates in excess of 80 parts per million in the raw</p> <p>8 septic sludge itself at a residential home?</p> <p>9 A. I don't know.</p> <p>10 Q. Did you look at any of the water quality results from</p> <p>11 the canals in forming your opinion about whether the</p> <p>12 canals are a potential source of nitrogen contamination</p> <p>13 to the groundwater?</p> <p>14 MR. CARTER: Object on foundation.</p> <p>15 A. I didn't form an opinion about the canals and their</p> <p>16 potential to be a source of contamination, that was</p> <p>17 outside of the scope of my review.</p> <p>18 Q. In critiquing the EPA report you said that the</p> <p>19 irrigation canals could be a significant source of</p> <p>20 nitrogen to the recharge of the groundwater, didn't</p> <p>21 you?</p> <p>22 MR. CARTER: Objection. Misstates testimony.</p> <p>23 Counsel, if you would indicate where you're referring</p> <p>24 to, we could clear up what was said and what wasn't.</p> <p>25 Q. You did say that in your report, didn't you?</p>	<p style="text-align: right;">Page 69</p> <p>1 used for these samples. Do you see the descriptions</p> <p>2 there?</p> <p>3 A. Can you show me what you're referring to?</p> <p>4 Q. Yeah, I'm actually going to be referring to only two</p> <p>5 things, LB-SS Canal SW.</p> <p>6 A. Uh-huh.</p> <p>7 Q. And CPR Canal SW. I'll be referring to those two</p> <p>8 things. And I will represent to you, just to speed the</p> <p>9 process up, that the first one, LB-SS Canal is just</p> <p>10 below Liberty Bosma Dairy in the Sunnyside Canal.</p> <p>11 That's what SS stands for.</p> <p>12 MR. CARTER: I'll object to that. Especially</p> <p>13 ambiguity as to just below.</p> <p>14 Q. Okay. And just for fun, we'll take a look at</p> <p>15 exhibit --</p> <p>16 A. I'm --</p> <p>17 Q. Do you see the first one here?</p> <p>18 A. This first one?</p> <p>19 Q. Yeah. We'll talk about that one first.</p> <p>20 A. All right. Thank you.</p> <p>21 Q. And I'll show you again Exhibit 333, just so you get a</p> <p>22 picture of approximately where the sample was taken?</p> <p>23 A. Okay. Uh-huh.</p> <p>24 Q. In Exhibit 333 I'll just point out to you that this is</p> <p>25 the Liberty Dairy, this is the Bosma Dairy that are</p>



<p style="text-align: right;">Page 70</p> <p>1 really -- he'll make an objection on this --</p> <p>2 essentially the same entity. This is the Bosma Dairy,</p> <p>3 as we call it in this case, the Bosma defendant. All</p> <p>4 of this property in this area here and then going down</p> <p>5 to what is right about VYD-17, that's about the</p> <p>6 southern end of the Bosma property?</p> <p>7 A. Uh-huh.</p> <p>8 Q. So for purposes of this question, please assume that.</p> <p>9 A. Uh-huh.</p> <p>10 Q. And there is a turn in the Sunnyside Canal that comes</p> <p>11 to, I guess, it looks like the northernmost point on</p> <p>12 Exhibit 333, Figure 15. The sample from the Sunnyside</p> <p>13 Canal was taken at approximately where I'm pointing my</p> <p>14 pen, at that northernmost point. Do you see that?</p> <p>15 A. Yes.</p> <p>16 Q. Okay.</p> <p>17 MR. CARTER: I'll object again based on</p> <p>18 foundation. I don't see any lats and longs or other</p> <p>19 GPS or other information indicating where these are.</p> <p>20 MR. TEBBUTT: I'm just asking him to accept my</p> <p>21 representation for purposes of this discussion.</p> <p>22 MR. CARTER: Understood. I'll object as to</p> <p>23 incomplete hypothetical.</p> <p>24 Q. On page 4 of 32 of Exhibit 348, please turn to that.</p> <p>25 Yep, 432. You see these are the analytical results for</p>	<p style="text-align: right;">Page 72</p> <p>1 canals could have significant concentrations of</p> <p>2 nitrogen that could impact groundwater, correct?</p> <p>3 That's a fair paraphrase?</p> <p>4 A. It's conceivable that they could have nitrogen impacts</p> <p>5 and could also be a source of recharge for groundwater.</p> <p>6 Q. Right. So my question is, page 4 of 32 of Exhibit 348</p> <p>7 essentially provides data that shows that there is very</p> <p>8 little nitrogen in the canal, correct?</p> <p>9 MR. CARTER: Objection. Lack of foundation. Goes</p> <p>10 beyond the opinions that have been expressed. And</p> <p>11 there is a lack of foundation as to the underlying</p> <p>12 document itself, which appears to be a single sample.</p> <p>13 Q. There's virtually no nitrogen there, right?</p> <p>14 A. The concentrations are low and it doesn't represent a</p> <p>15 complete data set, though, in terms of characterizing</p> <p>16 the potential impacts for nitrogen. One sample.</p> <p>17 Q. What else would you need?</p> <p>18 A. One sample is not adequate to characterize what the</p> <p>19 potential impacts could be. You need more data over</p> <p>20 time.</p> <p>21 Q. Fair enough.</p> <p>22 A. Under the, the representative of the sort of range of</p> <p>23 activities that would occur along the canal.</p> <p>24 Q. Sure. Do you have any data to support your position</p> <p>25 that there would be large nitrogen, potential nitrogen</p>
<p style="text-align: right;">Page 71</p> <p>1 the canal that we just discussed. That's what I</p> <p>2 represent to you. These are the analytical results for</p> <p>3 that point of sampling.</p> <p>4 Do you see where under nutrients it discusses what</p> <p>5 the nitrogen concentrations are in the canal?</p> <p>6 A. Yes.</p> <p>7 Q. And so that's in October of 2013 with water. I'll</p> <p>8 represent to you that there was significant water still</p> <p>9 in the Sunnyside Canal at that point. Okay?</p> <p>10 MR. CARTER: Object. Ambiguous as to significant.</p> <p>11 Incomplete hypothetical.</p> <p>12 Q. Sure. The canal had not been emptied for the year. So</p> <p>13 that's at the end of a full irrigation season.</p> <p>14 MR. CARTER: Same objections.</p> <p>15 Q. And in your report you talk about and you testified</p> <p>16 just a little while ago that you were concerned about</p> <p>17 potential agricultural impacts to the irrigation canal,</p> <p>18 right?</p> <p>19 MR. CARTER: Objection. Misstates prior</p> <p>20 testimony.</p> <p>21 Q. That's a fair paraphrase of your earlier testimony,</p> <p>22 isn't it?</p> <p>23 MR. CARTER: Objection. He never said he was</p> <p>24 concerned about anything.</p> <p>25 Q. That it was conceivable. It was conceivable that the</p>	<p style="text-align: right;">Page 73</p> <p>1 loadings from those irrigation canals?</p> <p>2 MR. CARTER: Objection. Misstates testimony.</p> <p>3 A. There was a reference in my rebuttal report of the</p> <p>4 Zuroske report where she presents nitrogen data from</p> <p>5 the canals that indicates that there -- the</p> <p>6 concentrations were based upon what she reported would</p> <p>7 typically be higher than this.</p> <p>8 Q. In the Sunnyside Irrigation Canal or the Roza Canal or</p> <p>9 in the irrigation return flow ditches?</p> <p>10 A. In the Granger district, I don't recall whether it was</p> <p>11 specific to the canals or not.</p> <p>12 Q. In the Granger Drain itself --</p> <p>13 A. But it was relative, relative to the canals in the</p> <p>14 Granger district.</p> <p>15 Q. But it wasn't about the canals themselves. Wasn't it</p> <p>16 about the irrigation return flow ditches that had high</p> <p>17 nitrogen in them?</p> <p>18 A. The subject of the study was the impact of the</p> <p>19 irrigation return on the Yakima River and evaluating</p> <p>20 ways to reduce that, but --</p> <p>21 Q. Exactly. So go ahead.</p> <p>22 A. I believe --</p> <p>23 Q. Sorry. I interrupted you.</p> <p>24 A. I believe the data that I looked at, again, I don't</p> <p>25 have it with me and I don't recall specifically whether</p>



<p style="text-align: right;">Page 74</p> <p>1 it was for the canals or not. I know I saw data. I</p> <p>2 thought it was for the canals that were higher than</p> <p>3 this, and it could indicate that there was variability</p> <p>4 in that data.</p> <p>5 But again, I didn't -- the purpose of my review of</p> <p>6 the EPA report was not to assess the water quality of</p> <p>7 the canals.</p> <p>8 Q. Right. And you just mentioned that the Zuroske study</p> <p>9 was primarily focused on the irrigation return flow</p> <p>10 ditches in the area and the high nitrogen in those,</p> <p>11 correct?</p> <p>12 MR. CARTER: Objection. Misstates prior</p> <p>13 testimony.</p> <p>14 A. That wasn't -- I don't know whether that was actually</p> <p>15 what I said or not. What I understand was is it was</p> <p>16 looking at water quality in the canals and the</p> <p>17 potential that that, those canals, could impact the</p> <p>18 Yakima River, was my understanding, yeah.</p> <p>19 Q. Right. And the irrigation return flow ditches and how</p> <p>20 they impacted the Granger Drain, right?</p> <p>21 MR. CARTER: Objection. Misstates prior</p> <p>22 testimony. Go ahead.</p> <p>23 A. My understanding, and again, I just looked at the data</p> <p>24 very briefly, was that the -- it was the water,</p> <p>25 representative of the water quality in the canals.</p>	<p style="text-align: right;">Page 76</p> <p>1 A. It's detected. There is nitrogen, so it would depend</p> <p>2 upon the volume of water. It could be a contributor to</p> <p>3 nitrogen loading, but the concentrations in the sample</p> <p>4 are low.</p> <p>5 Q. Most all of them -- well, nitrogen ammonia is</p> <p>6 non-detect, total Kjeldahl nitrogen, which is probably</p> <p>7 the best indicator of nitrogen loading; would you</p> <p>8 agree?</p> <p>9 MR. CARTER: Objection. Lack of foundation.</p> <p>10 Q. Of the analytes.</p> <p>11 MR. CARTER: Counsel --</p> <p>12 MR. TEBBUTT: Wait a minute. I'm asking the</p> <p>13 question.</p> <p>14 MR. CARTER: I'm going to object. Lack of</p> <p>15 foundation, exceeds the opinions that have been</p> <p>16 expressed.</p> <p>17 Q. So total Kjeldahl nitrogen of these analytes would be</p> <p>18 the best indicator of the potential total nitrogen</p> <p>19 loading; would you agree with that?</p> <p>20 A. I can't offer an opinion about that. I can acknowledge</p> <p>21 that it's ND. It's not detected.</p> <p>22 Q. You're not a geochemist, right?</p> <p>23 A. No, I'm not.</p> <p>24 Q. Yet you're -- okay. Fair enough.</p> <p>25 Let's take a look at page 7 of 32, Exhibit 348.</p>
<p style="text-align: right;">Page 75</p> <p>1 Q. In --</p> <p>2 A. My point is, is that it is, as we discussed before, a</p> <p>3 potential input that could impact groundwater quality</p> <p>4 and was not addressed in the EPA study.</p> <p>5 Q. Right. So I'll ask you again, page 4 of 32,</p> <p>6 Exhibit 348, do the nitrogen levels that you see in the</p> <p>7 Sunnyside Canal cause you any concern that these levels</p> <p>8 could impact groundwater in the area, just these</p> <p>9 levels, this one data point?</p> <p>10 MR. CARTER: Objection. Lack of foundation and it</p> <p>11 exceeds the opinions that have been expressed.</p> <p>12 A. I can't say that these data are representative of the</p> <p>13 conditions in the canal.</p> <p>14 Q. That's not what I'm asking. I'm saying based on this</p> <p>15 one data point, the nitrogen levels on this particular</p> <p>16 day, would you be concerned that the nitrogen levels on</p> <p>17 this day could impact groundwater?</p> <p>18 MR. CARTER: Objection. In addition to the prior</p> <p>19 ones, this has been asked and answered.</p> <p>20 A. Could you read the question back to me, please?</p> <p>21 (THE REPORTER READ BACK THE QUESTION</p> <p>22 QUESTION.)</p> <p>23 A. The nitrogen levels in this data are relatively low.</p> <p>24 Q. The nitrogen is virtually non-existent in that data</p> <p>25 set, right?</p>	<p style="text-align: right;">Page 77</p> <p>1 This, I will represent to you, is a sample taken on the</p> <p>2 same date, one year ago yesterday, at the Roza Canal</p> <p>3 just on the northern edge of the Cow Palace facility.</p> <p>4 All nitrogen analytes came in at non-detect in the Roza</p> <p>5 Canal, correct?</p> <p>6 A. That's accurate, yes.</p> <p>7 Q. And the Roza Canal is just north of the Cow Palace</p> <p>8 property; would you agree with that?</p> <p>9 A. Yes.</p> <p>10 Q. And so there would be essentially no nitrogen loading</p> <p>11 from the Roza Canal based on this data set, correct?</p> <p>12 MR. CARTER: Objection. Lack of foundation.</p> <p>13 Q. To the groundwater?</p> <p>14 MR. CARTER: Lack of foundation, exceeds the</p> <p>15 opinions in the report. Again, you've interrupted my</p> <p>16 objection. I don't appreciate that. You can ask</p> <p>17 another question after the objection.</p> <p>18 MR. TEBBUTT: Pardon me, counsel.</p> <p>19 A. The nitrogen is ND when this sample was taken, and I</p> <p>20 can't say that it's representative of conditions in the</p> <p>21 canal year-round, but at the time the sample, the time</p> <p>22 the sample was taken, it was ND.</p> <p>23 Q. Right. So if the levels were close to this year-round,</p> <p>24 that would refute your position that the irrigation</p> <p>25 canals are a potential significant source of nitrogen</p>





<p style="text-align: right;">Page 78</p> <p>1 loading to the groundwater, correct?</p> <p>2 MR. CARTER: Objection. Misstates testimony,</p> <p>3 calls for speculation, and again, goes beyond the</p> <p>4 opinions that have been expressed.</p> <p>5 A. My opinion was -- excuse me, was that it was not</p> <p>6 addressed by EPA in its report, and that was a gap in</p> <p>7 their analysis.</p> <p>8 Q. This fills in that gap, though, doesn't it?</p> <p>9 MR. CARTER: Objection. Objection. Argumentive,</p> <p>10 and again foundation and it goes beyond the scope of</p> <p>11 the opinions that have been expressed. I think Mr.</p> <p>12 Maul's made that abundantly clear.</p> <p>13 MR. TEBBUTT: He just said that it could</p> <p>14 influence, it's a conceivable influence. How could you</p> <p>15 say it's outside of the scope, Mr. Carter?</p> <p>16 MR. CARTER: As Mr. Maul just explained, it was a</p> <p>17 data gap EPA failed to consider. That's the scope of</p> <p>18 his opinion.</p> <p>19 MR. TEBBUTT: He also tried to rebut Dr. Shaw</p> <p>20 about Dr. Shaw not having any data. This is some data,</p> <p>21 isn't it?</p> <p>22 MR. CARTER: He did not make that conclusion as to</p> <p>23 this particular conclusion regarding the irrigation</p> <p>24 canals. I think it's clear from his report. And I'll</p> <p>25 just note that this deposition is supposed to be about</p>	<p style="text-align: right;">Page 80</p> <p>1 Q. Right. The first part was just the EPA report?</p> <p>2 A. Uh-huh.</p> <p>3 Q. And the second part, let's get back to that. If I</p> <p>4 recall your earlier testimony, you said that your</p> <p>5 rebuttal report was to critique the Lawrence -- correct</p> <p>6 me if I'm mischaracterizing, please -- the Lawrence,</p> <p>7 Shaw, and Erickson reports based on their reliance on</p> <p>8 the EPA report. So that -- you said primarily?</p> <p>9 A. Yes.</p> <p>10 Q. Is that fair?</p> <p>11 A. Yeah.</p> <p>12 Q. What else are you critiquing in the Lawrence, Shaw, or</p> <p>13 Erickson reports other than their reliance on the EPA</p> <p>14 report?</p> <p>15 A. I made reference to information from some of the</p> <p>16 Arcadis documents as well, and that's where I referred</p> <p>17 to monitoring well, boring logs, and the site location</p> <p>18 maps and the potentiometric surface maps that I looked</p> <p>19 at.</p> <p>20 Q. Just those documents that are listed in your rebuttal</p> <p>21 report?</p> <p>22 A. Yes.</p> <p>23 Q. Going back to Exhibit 346, your expert report --</p> <p>24 A. Uh-huh.</p> <p>25 Q. -- at the bottom of the page you have five potential</p>
<p style="text-align: right;">Page 79</p> <p>1 the opinions that Mr. Maul has expressed and it instead</p> <p>2 has degraded into an opportunity for counsel to try and</p> <p>3 have Mr. Maul come to the opinions based on select</p> <p>4 documents that have been picked out by plaintiffs'</p> <p>5 counsel.</p> <p>6 MR. TEBBUTT: Well, I completely disagree with</p> <p>7 you. You're just trying to frame it in a way that's</p> <p>8 most favorable to you, but I completely disagree with</p> <p>9 you, Mr. Carter, and your representations.</p> <p>10 MR. CARTER: That's fair enough.</p> <p>11 A. I didn't see Dr. Shaw discussing this data in his</p> <p>12 report.</p> <p>13 Q. (By Mr. Tebbutt) Take a look at page 3 of your expert</p> <p>14 report, please. Exhibit 346.</p> <p>15 A. Have we finished with this?</p> <p>16 Q. Yes. You talk about, at the bottom of the page, you</p> <p>17 say EPA skipped a step of developing a fact-based</p> <p>18 conceptual model. Have you seen Arcadis's conceptual</p> <p>19 site model?</p> <p>20 A. I don't believe I have. I should add that was not part</p> <p>21 of the scope of my --</p> <p>22 Q. What was the scope of your work, just to --</p> <p>23 A. Again, reviewing the EPA report.</p> <p>24 Q. The first part?</p> <p>25 A. Sorry?</p>	<p style="text-align: right;">Page 81</p> <p>1 sources of contamination that scientifically valid CSM</p> <p>2 should include. That spills over to a sixth on page 4,</p> <p>3 correct?</p> <p>4 MR. CARTER: I'll object. I think that misstates</p> <p>5 what this list is.</p> <p>6 Q. Does that misstate what your list is?</p> <p>7 A. What I say is a scientifically valid CSM relates</p> <p>8 potential sources of contamination to, and then the</p> <p>9 five or six bullets are listed.</p> <p>10 Q. Right. So for primary sources of contamination, now</p> <p>11 that you've seen Cow Palace, you've been there, what</p> <p>12 would be the primary sources of contamination for a CSM</p> <p>13 based on the site?</p> <p>14 A. Well, I was --</p> <p>15 MR. CARTER: Objection. Lack of foundation and</p> <p>16 exceeds the opinions that have been expressed.</p> <p>17 A. I prepared this comment in relationship to my review of</p> <p>18 the EPA report and was not asked to evaluate the</p> <p>19 potential impacts from the Cow Palace.</p> <p>20 Q. I understand that. But what I'm saying is, now that</p> <p>21 you've seen that, the facility, and you've reviewed</p> <p>22 some of the information, what are some of the primary</p> <p>23 sources of contamination that you would put into a CSM?</p> <p>24 MR. CARTER: Again, objection. Lack of foundation</p> <p>25 and it misstates his testimony. His testimony was it's</p>



<p style="text-align: right;">Page 82</p> <p>1 clear that the EPA reports lacks the CSM.</p> <p>2 MR. TEBBUTT: You know, I'm objecting to your</p> <p>3 narrative discussion. You can object and say what, you</p> <p>4 know, a proper objection. But narrative objections are</p> <p>5 not appropriate.</p> <p>6 MR. CARTER: Okay. Objection misstates page 3 of</p> <p>7 his expert report.</p> <p>8 Q. (By Mr. Tebbutt) Okay. Fair enough. So what I'm</p> <p>9 asking you is, what are the primary sources of</p> <p>10 contamination around the Cow Palace facility that EPA</p> <p>11 should have put in its report?</p> <p>12 MR. CARTER: This has been asked and answered.</p> <p>13 A. And I was commenting on the conceptual model that EPA</p> <p>14 included in its report and was not developing an</p> <p>15 opinion about contaminant sources or potential</p> <p>16 contamination from the Cow Palace.</p> <p>17 Q. Okay. Didn't they discuss the primary sources of</p> <p>18 contamination being the dairies? Yes or no.</p> <p>19 A. We can -- shall we get the conceptual site model out</p> <p>20 that EPA did?</p> <p>21 Q. Sure. Why don't you find it.</p> <p>22 A. I think that might be, that might be helpful. Is this</p> <p>23 okay? I was asked to bring this.</p> <p>24 Q. That's fine. I don't have any problem with that. For</p> <p>25 the record, though, the witness is looking at his own</p>	<p style="text-align: right;">Page 84</p> <p>1 A. My problem with this figure, and again, this was</p> <p>2 reflected, I believe, in my report, is that it shows</p> <p>3 potential sources of contamination associated with</p> <p>4 the -- all of the potential sources that they have</p> <p>5 identified for the Phase 3 report as complete exposure</p> <p>6 pathways and having led to impacts of the aquifer and</p> <p>7 water wells.</p> <p>8 And my concern with that is that that had not been</p> <p>9 investigated in this report to the degree necessary to</p> <p>10 make -- to draw the conclusions that there were any</p> <p>11 specific activity was a source or there were specific</p> <p>12 exposure pathways.</p> <p>13 Q. Okay. What else would have needed to be done?</p> <p>14 A. Well, I think, I was simply commenting that there are</p> <p>15 acceptable methods of preparing a conceptual site model</p> <p>16 that aren't biased and lead the reader directly to the</p> <p>17 conclusion that there are impacts when these impacts</p> <p>18 haven't been established.</p> <p>19 Q. What would you have done to create a conceptual site</p> <p>20 model different than EPA's? If you're saying EPA's was</p> <p>21 wrong, what would be the right way to do it?</p> <p>22 A. I would have shown where there was uncertainty and</p> <p>23 where additional assessment was necessary and used that</p> <p>24 to guide future assessment and data-gathering</p> <p>25 activities.</p>
<p style="text-align: right;">Page 83</p> <p>1 version of the EPA report, and I'm fine with that.</p> <p>2 MR. CARTER: What I'm planning to do, we can do it</p> <p>3 now or later, is to introduce this as an exhibit, the</p> <p>4 entire copy of the report with the exhibits and</p> <p>5 figures. We can do it now or later, whichever you</p> <p>6 prefer.</p> <p>7 MR. TEBBUTT: Do you want to introduce this</p> <p>8 particular binder as the exhibit?</p> <p>9 MR. CARTER: I want to produce the complete report</p> <p>10 including the figures and the exhibits.</p> <p>11 MR. TEBBUTT: I'm asking, do you want to introduce</p> <p>12 that physical piece?</p> <p>13 MR. CARTER: Yes. Yes.</p> <p>14 MR. TEBBUTT: Okay. By all means.</p> <p>15 (PLAINTIFFS' EXHIBIT NO. 349 WAS</p> <p>16 MARKED FOR IDENTIFICATION.)</p> <p>17 Q. (By Mr. Tebbutt) That means you can't take that back</p> <p>18 to Vancouver with you. Lighten your load.</p> <p>19 A. That will be good. Okay.</p> <p>20 Q. Okay. Go to the EPA conceptual site models.</p> <p>21 A. Figure 1.</p> <p>22 Q. Did you say Figure 1?</p> <p>23 A. Yes.</p> <p>24 Q. Okay. So tell me what's missing from the EPA</p> <p>25 conceptual site model.</p>	<p style="text-align: right;">Page 85</p> <p>1 Q. So what other assessment would you have identified as</p> <p>2 necessary?</p> <p>3 A. One of the deficiencies that I identify in the EPA</p> <p>4 report is the lack of characterization of the</p> <p>5 unsaturated zone in the area.</p> <p>6 Q. How would you go about characterizing that unsaturated</p> <p>7 zone?</p> <p>8 A. Through borings, investigations, monitoring wells,</p> <p>9 drilling.</p> <p>10 Q. Isn't that exactly what happened?</p> <p>11 A. The ground -- I haven't reviewed those. Review of that</p> <p>12 documentation relative to that work was outside of the</p> <p>13 scope that I performed. I know that there has been</p> <p>14 monitoring wells installed out there and there's</p> <p>15 groundwater monitoring going on, but I haven't reviewed</p> <p>16 the work plans or documents leading up to that.</p> <p>17 Q. Do you know whether EPA reviewed existing well boring</p> <p>18 logs in creating its -- before creating its conceptual</p> <p>19 model?</p> <p>20 A. They did not, that I am aware of.</p> <p>21 Q. Review any well boring logs for the area?</p> <p>22 A. They didn't discuss the characteristics of the</p> <p>23 unsaturated zone.</p> <p>24 Q. But you don't know whether they reviewed any well</p> <p>25 boring logs before creating a conceptual model; is that</p>





<p style="text-align: right;">Page 86</p> <p>1 what you're stating today?</p> <p>2 A. I'm stating that I did not see any kind of a discussion</p> <p>3 in the report to indicate that they had that would</p> <p>4 accurately reflect, that I've seen, in terms of the</p> <p>5 unsaturated zone, thickness and characteristics.</p> <p>6 Q. The conceptual model isn't the entities, right? It's</p> <p>7 just the conceptual model to assess what data has been</p> <p>8 collected and then to use that as a basis for figuring</p> <p>9 out what data needs to be collected moving forward; is</p> <p>10 that a fair assessment?</p> <p>11 A. To guide the investigation.</p> <p>12 Q. Is that correct? To guide the investigation, in your</p> <p>13 terms?</p> <p>14 A. And data-gathering activities.</p> <p>15 Q. Doesn't this conceptual model have a number of</p> <p>16 potential release mechanisms in it?</p> <p>17 A. Yes, it does.</p> <p>18 Q. Okay. Does it have transport mechanisms?</p> <p>19 A. I would not say that they're well articulated.</p> <p>20 Q. But it has some. What transport mechanisms are</p> <p>21 identified?</p> <p>22 A. I really can't tell, from this figure. It's kind of</p> <p>23 cartoonish, in a way. It suggests that there are</p> <p>24 releases that go directly to various receptors with no</p> <p>25 real assessment of mechanisms or whether or not there</p>	<p style="text-align: right;">Page 88</p> <p>1 A. I think it would be valid to accurately present</p> <p>2 uncertainties relative to and prior to drawing any</p> <p>3 conclusions, and I don't think that the EPA report was</p> <p>4 really very -- either thorough or transparent in</p> <p>5 identifying what the uncertainties relative to their</p> <p>6 conclusions were.</p> <p>7 Q. The certainties are that there are significant nitrogen</p> <p>8 loadings in the area around the cluster dairies, right?</p> <p>9 You would agree that there are certainly significant</p> <p>10 nitrogen loadings from the dairies themselves, right?</p> <p>11 MR. CARTER: Objection. Compound, and misstates</p> <p>12 the EPA report.</p> <p>13 Q. You agree with that, don't you?</p> <p>14 A. No.</p> <p>15 Q. You don't think that the dairies are a significant</p> <p>16 source of nitrogen loading to the soils?</p> <p>17 A. I don't, I --</p> <p>18 MR. CARTER: Objection. Lack of foundation and</p> <p>19 exceeds the opinions that have been expressed.</p> <p>20 A. Again, I don't know whether they are. There is</p> <p>21 widespread contamination throughout the Yakima Valley</p> <p>22 associated a number of different sources. For example,</p> <p>23 the EPA report purported to evaluate the impacts from</p> <p>24 not just the dairy cluster, but from irrigated</p> <p>25 croplands and septic tanks. And the concentrations of</p>
<p style="text-align: right;">Page 87</p> <p>1 is data to indicate that there is a complete or any</p> <p>2 exposure pathway.</p> <p>3 Q. Aren't the exposure pathways the wells that would be</p> <p>4 drilled into potentially contaminated groundwater?</p> <p>5 A. A well could be an exposure pathway.</p> <p>6 Q. And the receptors would be the people who drink from</p> <p>7 that?</p> <p>8 A. That's correct.</p> <p>9 Q. You then talk about, on page 4 of your report, The</p> <p>10 exposure pathways classified as complete, potentially</p> <p>11 complete, or not complete. What do you mean by that?</p> <p>12 A. Whether or not there is data to indicate that those</p> <p>13 exposure pathways are complete, potentially complete,</p> <p>14 or not complete.</p> <p>15 Q. Right. But what do you mean by that? You say -- your</p> <p>16 next sentence says: The CSM in the report presents all</p> <p>17 pathways as complete without any data to support such a</p> <p>18 conclusion.</p> <p>19 A. For example, the -- I'm sorry.</p> <p>20 Q. Go ahead.</p> <p>21 A. The irrigated cropland leaching fertilizer is shown as</p> <p>22 being directly related to contaminated drinking water</p> <p>23 wells.</p> <p>24 Q. What would you -- what would you do differently than</p> <p>25 what EPA did?</p>	<p style="text-align: right;">Page 89</p> <p>1 the nitrates in the wells that they selected for</p> <p>2 monitoring were basically similar, which suggests that</p> <p>3 there are fairly widespread impacts, which I think has</p> <p>4 been acknowledged within the Yakima Valley.</p> <p>5 The well in the EPA study with the highest</p> <p>6 nitrogen concentration wasn't associated with any</p> <p>7 specific impact.</p> <p>8 Q. What's the source of the highest nitrogen loading</p> <p>9 around the cluster dairies?</p> <p>10 MR. CARTER: Objection. Lack of foundation. Goes</p> <p>11 beyond the opinions that have been expressed.</p> <p>12 THE WITNESS: Could you read the question back</p> <p>13 again, please?</p> <p>14 (THE REPORTER READ BACK THE QUESTION</p> <p>15 QUESTION.)</p> <p>16 A. I don't know the answer to that. I, again, I was asked</p> <p>17 to review the EPA report and I don't think that you</p> <p>18 could, from that report, draw such a conclusion.</p> <p>19 Q. You don't think EPA did an assessment of how many</p> <p>20 residences there were around the area, how much</p> <p>21 irrigated cropland there was around the area, and how</p> <p>22 many dairies and animal units there were in the area?</p> <p>23 MR. CARTER: Objection. Calls for speculation.</p> <p>24 A. They might have. That doesn't necessarily mean that --</p> <p>25 explain what the mechanism for the contamination might</p>



<p style="text-align: right;">Page 90</p> <p>1 be.</p> <p>2 Q. So it's the mechanism that you're, that you're taking</p> <p>3 issue with EPA about?</p> <p>4 MR. CARTER: Objection. Misstates testimony.</p> <p>5 A. I'm saying that there are multiple potential scenarios</p> <p>6 for contamination that's seen in the wells that were</p> <p>7 tested by EPA.</p> <p>8 Q. And so you think some of the other potential</p> <p>9 contamination conceivably could be other septic systems</p> <p>10 or other irrigated cropland?</p> <p>11 MR. CARTER: Objection.</p> <p>12 A. That's not what I'm saying.</p> <p>13 Q. What are you saying, then?</p> <p>14 A. What was the question?</p> <p>15 Q. What are you saying?</p> <p>16 A. About what?</p> <p>17 Q. This conceptual model. You're saying "that's not what</p> <p>18 I'm saying," so I'm asking, what are you saying?</p> <p>19 A. Again --</p> <p>20 Q. About the nitrogen.</p> <p>21 A. Okay.</p> <p>22 Q. Let me back up. I'm trying to figure out what you</p> <p>23 think the nitrogen sources are in the area for the</p> <p>24 conceptual model. And you've critiqued EPA's report by</p> <p>25 saying that they didn't assess the -- are you saying</p>	<p style="text-align: right;">Page 92</p> <p>1 EPA did it.</p> <p>2 Q. How long would it take you to put together a valid</p> <p>3 historical scope of work?</p> <p>4 A. That would take --</p> <p>5 MR. CARTER: Calls for speculation.</p> <p>6 Q. It doesn't call for speculation. You can give us an</p> <p>7 answer, Mr. Maul. How long would it take you?</p> <p>8 A. To put together a scope of work for the historical</p> <p>9 evaluation?</p> <p>10 Q. Yeah.</p> <p>11 A. A period of months.</p> <p>12 Q. What would you do to gather that evidence? What</p> <p>13 evidence would you seek to gather?</p> <p>14 MR. CARTER: Calls for speculation. Same</p> <p>15 objection.</p> <p>16 Q. Question pending.</p> <p>17 A. I want to give you an accurate answer. Again, it would</p> <p>18 be -- there is a number of different types of</p> <p>19 information that you could potentially look at that I</p> <p>20 don't necessarily have the ability to come up with off</p> <p>21 the top of my head that would allow you to evaluate</p> <p>22 what is a complex situation here.</p> <p>23 I'm saying that EPA did not appear to really</p> <p>24 consider the potential impacts from historical</p> <p>25 practices to the aquifer.</p>
<p style="text-align: right;">Page 91</p> <p>1 that EPA didn't assess the possible sources of nitrogen</p> <p>2 loading?</p> <p>3 A. I'm saying that they didn't assess all of them, that it</p> <p>4 seemed like the report concluded without adequate</p> <p>5 consideration of other potential sources that existing</p> <p>6 activities at this time are the source of elevated</p> <p>7 nitrogen concentration in the wells. And I'm just</p> <p>8 saying that their report doesn't support that</p> <p>9 conclusion.</p> <p>10 Q. Well, I guess --</p> <p>11 A. And that they have not -- they -- and that their</p> <p>12 evaluation was incomplete.</p> <p>13 Q. And that's what I'm trying to get at, is why is it</p> <p>14 incomplete? What part of their investigation is</p> <p>15 incomplete? Is it just the transport mechanism?</p> <p>16 A. For example, they didn't look at the historical</p> <p>17 activities that could have impacted groundwater in the,</p> <p>18 you know, the long history of agricultural activities</p> <p>19 in the Valley.</p> <p>20 Q. How would they have done that?</p> <p>21 A. Get historical information, evaluating the nature of</p> <p>22 the activities, historical data. There is a number of</p> <p>23 different ways that that could be, could be done. It</p> <p>24 would take time for me to actually put together a valid</p> <p>25 scope of work to do that, but it did not appear that</p>	<p style="text-align: right;">Page 93</p> <p>1 Q. So you haven't done any kind of loading assessment</p> <p>2 about how much nitrogen 11,000 animal units provides at</p> <p>3 the Cow Palace facility, right?</p> <p>4 A. That wasn't in the scope of what I was asked to</p> <p>5 evaluate.</p> <p>6 THE WITNESS: Can I take a break?</p> <p>7 MR. TEBBUTT: Yes.</p> <p>8 (A SHORT RECESS WAS HAD.)</p> <p>9 Q. (By Mr. Tebbutt) Is your report, Exhibit 346, in front</p> <p>10 of you, Mr. Maul?</p> <p>11 A. Yes.</p> <p>12 Q. Would you turn to page 6, please. The third bullet on</p> <p>13 page 6 you talk about overland transport of</p> <p>14 contaminants in storm water. Why is that of concern to</p> <p>15 you?</p> <p>16 MR. CARTER: Objection. Misstates the testimony.</p> <p>17 A. Again, it goes to the question of the scope and</p> <p>18 adequacy of EPA's evaluation and their exclusion of a</p> <p>19 potential of the mechanisms that could result in</p> <p>20 groundwater contamination, particularly if there was</p> <p>21 runoff into, for example, the canals and the canals</p> <p>22 leaked and could potentially impact groundwater.</p> <p>23 Q. Runoff from what?</p> <p>24 A. Agricultural practices, fields.</p> <p>25 Q. And the dairies would be one of those agricultural</p>



<p style="text-align: right;">Page 94</p> <p>1 practices, right?</p> <p>2 MR. CARTER: Objection. Calls for speculation,</p> <p>3 lack of foundation.</p> <p>4 Q. Really? Does that call for speculation that the</p> <p>5 dairies are a source of potential storm water runoff?</p> <p>6 A. There could be runoff from any number of facilities,</p> <p>7 and to the extent that there are dairies, there could</p> <p>8 be runoff from dairies.</p> <p>9 Q. And at the bottom of page 6, going on out, EPA used</p> <p>10 some so-called tracer evaluations of the pharmaceutical</p> <p>11 compounds found in the dairy manure, in the dairy</p> <p>12 lagoons, and in the dairy groundwater, correct?</p> <p>13 A. There -- hang on. I want to make sure I understand the</p> <p>14 question.</p> <p>15 THE WITNESS: Could you read that back to me?</p> <p>16 (THE REPORTER READ BACK THE QUESTION</p> <p>17 QUESTION.)</p> <p>18 A. There was inconsistent correlation with the tracers</p> <p>19 that EPA used. Some were found in different mediums</p> <p>20 and not others.</p> <p>21 Q. Right. But they were found in -- one of your critiques</p> <p>22 was the inconsistent, the sometimes so-called</p> <p>23 upgradient wells had some of the compounds present,</p> <p>24 correct, so you were saying that EPA's conclusions that</p> <p>25 the dairies were a source of the pharmaceuticals was</p>	<p style="text-align: right;">Page 96</p> <p>1 (THE REPORTER READ BACK THE QUESTION</p> <p>2 QUESTION.)</p> <p>3 A. Yeah, I don't believe all of the data was flagged as</p> <p>4 estimated or that there were QC problems with all of</p> <p>5 the data.</p> <p>6 Q. Let's go to page 8 of your report. You state, among</p> <p>7 other things, that EPA made overly-conservative</p> <p>8 assumptions and broad estimates including number of</p> <p>9 animals. Let's start there. What overestimates of</p> <p>10 number of animals did EPA assume in its study?</p> <p>11 A. I'm sorry, first bullet?</p> <p>12 Q. Yes. Under dairies.</p> <p>13 A. Okay. I'm just saying that in a number of cases EPA</p> <p>14 said that they were, that they didn't have specific</p> <p>15 information regarding the assumptions that they were</p> <p>16 making.</p> <p>17 Q. Are you saying that they improperly assumed the number</p> <p>18 of animals? Isn't that what your report says?</p> <p>19 A. They noted where they were making assumptions and they</p> <p>20 lacked specific information.</p> <p>21 Q. Right. So they had a range of numbers, correct?</p> <p>22 A. Yes. Yes.</p> <p>23 Q. And were you, did you read the part of the EPA report</p> <p>24 where they said that the dairies didn't allow them onto</p> <p>25 their facilities to look at the facilities?</p>
<p style="text-align: right;">Page 95</p> <p>1 incorrect based on that observation of yours?</p> <p>2 MR. CARTER: Objection. Misstates testimony.</p> <p>3 A. I didn't believe that the EPA was able to accurately</p> <p>4 correlate the detections of the compounds.</p> <p>5 Q. But you don't take issue that the compounds were found</p> <p>6 on the facilities; is that correct?</p> <p>7 A. The data is what the data is. If there were certain, a</p> <p>8 number of -- a variety of different compounds detected</p> <p>9 in the various samples; notwithstanding there were a</p> <p>10 number of quality control issues associated with those</p> <p>11 analyses.</p> <p>12 Q. Right. I recognize that you indicated that some of the</p> <p>13 groundwater levels of pharmaceuticals were near the</p> <p>14 detection limit, therefore potentially putting their</p> <p>15 detection at issue, correct?</p> <p>16 A. I didn't actually make that notation, EPA did in their</p> <p>17 data validation. I just reported what they validated</p> <p>18 and reported.</p> <p>19 Q. You just pointed that out. But some of them were not</p> <p>20 in question, some of the findings. You did not say</p> <p>21 that all of the findings of pharmaceuticals in the</p> <p>22 groundwater were suspect, correct?</p> <p>23 A. What did I say?</p> <p>24 THE WITNESS: Could you read that back to me</p> <p>25 again?</p>	<p style="text-align: right;">Page 97</p> <p>1 A. I did.</p> <p>2 Q. So are you saying that EPA overestimated the number of</p> <p>3 animals present?</p> <p>4 A. Let me check the -- let me go back to the report and</p> <p>5 see what EPA said. I thought there was a specific</p> <p>6 example there, but I can't find it, that there was a</p> <p>7 number of just, an estimate that EPA employs in terms</p> <p>8 of the waste generated by the dairies, and that was</p> <p>9 just the point that I was trying to make.</p> <p>10 Q. So do you have any references or scientific citations</p> <p>11 to refute the numbers that EPA used in its report?</p> <p>12 A. My biggest concern, in looking at this, these</p> <p>13 statements, was the, again, the apparent lack of</p> <p>14 evidence that indicated that the surface conditions led</p> <p>15 to impacts of groundwater.</p> <p>16 Q. Right. It doesn't answer my question.</p> <p>17 MR. TEBBUTT: Would you read back my question,</p> <p>18 please?</p> <p>19 (THE REPORTER READ BACK THE QUESTION</p> <p>20 QUESTION.)</p> <p>21 A. I don't.</p> <p>22 Q. Page 10 of your report talks about septic systems.</p> <p>23 Says septic systems were not evaluated as rigorously as</p> <p>24 were the dairy operations during the study, indicating</p> <p>25 inconsistent methodologies. Do you know how many</p>



<p style="text-align: right;">Page 98</p> <p>1 septic systems there are around the Cow Palace 2 facility? 3 MR. CARTER: Objection. Foundation. 4 A. I don't. 5 Q. Page 11 of your report, the first bullet, you say that 6 nitrate concentrations in wells downgradient of septic 7 systems were found to be equal to or greater than 8 nitrate concentrations in comparables with down- 9 gradient of dairy operations or irrigated cropland. 10 A. I'm sorry, which page? 11 Q. The first bullet on the top of page 11. 12 A. Oh. 13 MR. CARTER: Next page, Jim. 14 A. Oh. There is my problem. Okay. 15 Q. Do you have that in front of you, Mr. Maul? 16 A. Yes, I do. 17 Q. Aren't those septic systems also downgradient of the 18 dairies sources that you're referring to? 19 A. My understanding of the EPA's methodology of selecting 20 septic tanks for analysis were they were non-associated 21 dairies, they were other sources of potential sources 22 of contaminants. 23 Q. Let me ask you this question: Do you know where the 24 septic systems were in relation to other dairies that 25 EPA looked at?</p>	<p style="text-align: right;">Page 100</p> <p>1 Q. Is that it? 2 A. Yeah. 3 Q. What facts or assumptions were presented to you to help 4 you do your expert report? And when I say facts or 5 assumptions presented to you, I'm talking about counsel 6 for the defendants or the defendants themselves, other 7 than what we discussed earlier about your conversations 8 with Adam Dolsen and other Cow Palace employees and 9 counsel. 10 MR. CARTER: I'll instruct the witness not to 11 answer as to any privileged communications between 12 attorneys and you not go beyond identifying just facts 13 or just assumptions for you to rely upon. 14 A. Could you read the question for me, again, please? 15 Q. I'll rephrase it. 16 A. Okay. 17 Q. What facts or assumptions were you given to assist in 18 your work in this case for Cow Palace? 19 A. I was provided with the instructions to review the EPA 20 report and evaluate the methods used in the report and 21 the conclusions that it came to. I don't recall any 22 other instructions or methods that I was instructed to 23 use. 24 Q. You weren't asked to assume any facts or models or 25 assumptions -- I guess that's redundant. You weren't</p>
<p style="text-align: right;">Page 99</p> <p>1 A. And that was one of the problems that I had with the 2 EPA report, was that when you started getting into 3 looking at the septic systems or the, the locations, I 4 didn't feel like their mapping was really as rigorous 5 as it had been perhaps for the dairy operations, and 6 you just weren't able, again, that's one of my 7 criticisms, you just weren't able to make that 8 correlation. 9 Q. You, I believe, made some statements about the nitrogen 10 isotope testing that EPA, and that -- let's see if I 11 get that right. I'm trying to recall whether that was 12 in your rebuttal report. Strike that. 13 Do you recall whether you discussed at all 14 nitrogen isotope tests that were taken and whether they 15 were indicative of animal waste? 16 A. I recall that the EPA report did not distinguish 17 between human and other animal waste with the isotope 18 analysis. I believe they commented on that. 19 Q. Do you know whether the isotopic testing can 20 distinguish between human and animal waste by itself? 21 MR. CARTER: Objection. Lack of foundation. 22 A. I don't, no. 23 Q. Have you read any of the expert reports in these cases? 24 A. Yes. I read Dr. Lawrence's, Dr. Shaw's, and the 25 Erickson report.</p>	<p style="text-align: right;">Page 101</p> <p>1 asked to assume any facts or models? 2 A. No, I don't believe so. If I understand your question 3 correctly. 4 Q. So your rebuttal report, which we have determined is 5 all inaccurately paginated as page 16, correct? 6 A. It appears to be that way. 7 Q. All right. So what I will try to do is discuss the 8 name, the person whose report you were intending to 9 rebut and whatever paragraphs, to the extent possible, 10 that we're referencing. 11 The Lawrence report -- you're not a public health 12 expert, are you? 13 A. No. 14 Q. And just so everyone knows and Preston knows this, too, 15 Dr. Lawrence, we have already established through his 16 deposition last week, is not opining whether or not Cow 17 Palace is the cause of the contamination around Cow 18 Palace, just that nitrates present a public health 19 threat. 20 MR. TEBBUTT: Fair stipulation, from what you 21 understand with your co-counsel? 22 MR. CARTER: That's consistent with what I 23 understand, yes. Fair enough. 24 Q. Okay. So with that understanding, your rebuttal of 25 Dr. Lawrence really is irrelevant, isn't it?</p>



<p style="text-align: right;">Page 102</p> <p>1 MR. CARTER: Objection. Calls for a legal 2 conclusion. 3 MR. TEBBUTT: If counsel will stipulate that it's 4 irrelevant, then I won't ask any questions about this. 5 MR. CARTER: No, I'm not going to stipulate that 6 it's irrelevant. 7 MR. TEBBUTT: Okay. I'll have to ask some 8 questions about it. 9 MR. CARTER: It's your day. 10 A. Is there a question I'm supposed to answer? 11 Q. (By Mr. Tebbutt) Let rephrase it. Your criticisms or 12 critiques of Dr. Lawrence's report are all based on the 13 premise that Dr. Lawrence is saying that Cow Palace is 14 the cause of the contamination, correct? 15 MR. CARTER: Objection. Misstates testimony. 16 A. Yeah, I don't, I don't think that's the case. I just 17 was responding to what Dr. Lawrence said in my rebuttal 18 report. 19 Q. Show me where in any of your five pages of rebuttal of 20 Dr. Lawrence's report that you're rebutting something 21 that doesn't involve a causation of Cow Palace causing 22 groundwater contamination. Take your time. Do you 23 understand my question, first of all? 24 A. Well, since you're asking me if I understand your 25 question, I better, I feel like I should ask you to</p>	<p style="text-align: right;">Page 104</p> <p>1 Q. We've established that. 2 MR. CARTER: We'll stipulate to that. 3 A. Item No. 22. 4 Q. Okay. At the bottom, starting -- 5 A. At the bottom, yeah. Lawrence, Dr. Lawrence's 6 statement is: In its analysis of the cluster dairies, 7 which includes Cow Palace, the EPA studies sampled 8 residential wells during Phases 2 and 3 of the study 9 for nitrates. 10 During Phase 2 sampling, EPA sampled 331 11 residential wells between February 22nd and March 6, 12 2010. And they -- he goes on to summarize the number 13 of homes that had nitrates in excess of the MCL. 14 During Phase 3, EPA obtained samples from one 15 upgradient drinking water well and eight downgradient 16 residential drinking water wells. 17 Paraphrasing or summarizing, the eight down- 18 gradient drinking water sources had also been sampled 19 during Phase 2. As a result of the Phase 3 sampling, 20 EPA concluded that upgrade well MW06 is within back- 21 ground range and found some downgradient wells were 22 more than four times the MCL, indicating that the dairy 23 cluster, which includes Cow Palace, is a source of the 24 increased nitrogen levels in downgradient wells. So 25 he's referring to the dairy cluster in that statement.</p>
<p style="text-align: right;">Page 103</p> <p>1 clarify it, if you think you need to. 2 Q. I don't think I need to. I'm asking you whether you 3 think I need to. 4 A. Okay. 5 THE WITNESS: Would you go ahead and read that 6 back to me? 7 (THE REPORTER READ BACK THE QUESTION 8 QUESTION.) 9 Q. That was somewhat unartful. Do you want me to rephrase 10 that? 11 A. I think it would be helpful. I want to make sure I'm 12 answering correctly. 13 Q. Is there anything in your five pages of rebuttal of 14 Dr. Lawrence's report that involves something other 15 than Dr. Lawrence saying that Cow Palace is the cause 16 of the groundwater contamination? 17 A. Yes. 18 Q. Where? 19 A. For example, Dr. Lawrence states in -- and this is in, 20 again, in his reference to the EPA report, in its 21 analysis of the cluster. 22 Q. Where are you looking? 23 A. I'm sorry. I'm on page -- 24 Q. Page 16? 25 A. -- page 16.</p>	<p style="text-align: right;">Page 105</p> <p>1 Q. Right. And so he's relying on the EPA determination, 2 which you're saying he shouldn't; is that correct? 3 A. I'm just saying that -- indicating that the dairy 4 cluster is a source of the increased nitrogen levels in 5 the downgradient wells. You're asking me a different 6 question, I think. 7 Q. I'm asking you -- 8 A. Because I was answering an earlier question about 9 directly relating to the Cow Palace. 10 Q. Uh-huh. 11 A. And I was answering that and it relates to -- as it 12 relates to all of Dr. Lawrence's testimony. And that 13 was a statement by Dr. Lawrence that was beyond the Cow 14 Palace. So I just wanted to make sure that I was 15 answering your question. 16 Q. Okay. Fair enough. I appreciate that. 17 And I think you did identify a problem with Dr. 18 Lawrence's report here that he sort of misstated the 67 19 homes. It wasn't 20 percent of the 67 homes were 20 contaminated, but that 67 homes' water supplies were 21 contaminated, correct? You understood that to be the 22 correct interpretation of the EPA report, right? 23 A. That's what we read the EPA report to say. 24 Q. All right. Just to be clear, you're not opining here 25 that nitrates don't present a health risk, are you?</p>



<p style="text-align: right;">Page 106</p> <p>1 A. No.</p> <p>2 Q. And you don't even know at what level they might</p> <p>3 present a health risk, do you?</p> <p>4 A. I don't know --</p> <p>5 Q. Just a minute. Whether it's at the MCL or below, you</p> <p>6 don't know?</p> <p>7 A. I'm not an expert on the health impacts associated with</p> <p>8 nitrates.</p> <p>9 Q. You're not taking issue with anything in Dr. Lawrence's</p> <p>10 report about the fact that Cow Palace uses all of the</p> <p>11 pharmaceuticals found in the groundwater, correct,</p> <p>12 you're not saying --</p> <p>13 MR. CARTER: Objection.</p> <p>14 Q. You're not saying they're the cause of the groundwater,</p> <p>15 but that the dairies themselves use the chemicals that</p> <p>16 are also found in the groundwater, you're not taking</p> <p>17 issue with that, are you?</p> <p>18 MR. CARTER: Objection. Misstates Dr. Lawrence's</p> <p>19 testimony.</p> <p>20 THE WITNESS: Could you read the question back to</p> <p>21 me, please?</p> <p>22 (THE REPORTER READ BACK THE QUESTION</p> <p>23 QUESTION.)</p> <p>24 A. There were instances of chemical detections in the</p> <p>25 dairy samples that are also found in groundwater.</p>	<p style="text-align: right;">Page 108</p> <p>1 Q. (By Mr. Tebbutt) You're not rebutting any of the</p> <p>2 factual statements that Dr. Lawrence made about what</p> <p>3 chemicals were used at Cow Palace, are you?</p> <p>4 A. I'm -- my only rebuttal of Dr. Lawrence is the extent</p> <p>5 to which he relies upon the EPA report and the extent</p> <p>6 to which there are uncertainties upon that reliance.</p> <p>7 Q. And so to the extent those issues have been cleared up</p> <p>8 by further discovery, you're not disputing any of those</p> <p>9 additional statements of fact made by Dr. Lawrence, are</p> <p>10 you?</p> <p>11 A. I'm not disputing statements of fact made by</p> <p>12 Dr. Lawrence.</p> <p>13 Q. Thank you. I'll hand you what's been previously marked</p> <p>14 as Exhibit 329 in this matter, the expert report of</p> <p>15 Byron Shaw. I'm going to ask you some questions about</p> <p>16 it. On page 16 -- sorry. At the beginning of your</p> <p>17 critique of the Shaw report --</p> <p>18 A. Yes.</p> <p>19 Q. -- the first paragraph, you say, among other things,</p> <p>20 that Dr. Shaw ignores other sources of nitrates,</p> <p>21 potential sources of nitrates, including sources that</p> <p>22 are known to exist, e.g., septic systems.</p> <p>23 MR. CARTER: Objection. That misstates the</p> <p>24 testimony.</p> <p>25 Q. Does Dr. Shaw ignore septic systems?</p>
<p style="text-align: right;">Page 107</p> <p>1 Q. Right. But that Dr. Lawrence, you're not -- you're not</p> <p>2 refuting Dr. Lawrence's findings that the dairies also</p> <p>3 used those chemicals in their animals, right?</p> <p>4 MR. CARTER: Objection. Misstates Dr. Lawrence's</p> <p>5 testimony.</p> <p>6 Q. Let me rephrase it.</p> <p>7 A. Yeah.</p> <p>8 Q. I believe one of your critiques of the EPA study was</p> <p>9 that EPA didn't know for sure whether the dairies were</p> <p>10 using all of those pharmaceuticals or not, right?</p> <p>11 A. There was, there were gaps in the information that EPA</p> <p>12 had.</p> <p>13 Q. Right. And Dr. Lawrence filled in those gaps. But</p> <p>14 you're not rebutting any of the factual statements that</p> <p>15 Dr. Lawrence is making that the dairies actually do use</p> <p>16 all of those chemicals, are you?</p> <p>17 MR. CARTER: Objection. Misstates Dr. Lawrence's</p> <p>18 testimony. I can offer a little bit of narrative, if</p> <p>19 you want me to. I think we can clear up this dispute,</p> <p>20 or not.</p> <p>21 MR. TEBBUTT: We can do it off the record, if you</p> <p>22 want.</p> <p>23 MR. CARTER: Let's go off the record.</p> <p>24 (AN OFF-THE-RECORD DISCUSSION WAS</p> <p>25 HELD.)</p>	<p style="text-align: right;">Page 109</p> <p>1 A. I'm sorry?</p> <p>2 Q. The first paragraph on the Shaw report.</p> <p>3 A. Here?</p> <p>4 Q. Yeah. Right here.</p> <p>5 A. Okay. Okay. For example, septic systems.</p> <p>6 Q. Does he ignore septic systems?</p> <p>7 MR. CARTER: Objection. That misstates the</p> <p>8 testimony. We can read this paragraph.</p> <p>9 MR. TEBBUTT: I'm asking him, does he ignore</p> <p>10 septic systems. That's a valid question.</p> <p>11 A. I think to the extent that I think septic systems are a</p> <p>12 potential source of nitrate contamination and it, it is</p> <p>13 not receiving the attention that the dairies are.</p> <p>14 Q. Right. Do you think the septic systems deserve the</p> <p>15 same amount of attention that the dairies do?</p> <p>16 A. The contamination in EPA's study in domestic wells were</p> <p>17 at levels comparable to the contamination wells that</p> <p>18 are seen around not just of the dairies, but the</p> <p>19 irrigated croplands, but they certainly don't receive</p> <p>20 as much discussion or acknowledgment of that.</p> <p>21 Q. How about, again, I think we've already established</p> <p>22 that you don't know how many septic systems there are</p> <p>23 around the Cow Palace property, right?</p> <p>24 A. I'm sorry.</p> <p>25 Q. There's --</p>





<p style="text-align: right;">Page 110</p> <p>1 A. I don't.</p> <p>2 Q. Right. So we don't have much to go on there, do we?</p> <p>3 Without that knowledge in your mind, there is not much</p> <p>4 we can talk about.</p> <p>5 A. I wasn't -- I'm sorry. I need to let you finish.</p> <p>6 Q. I did finish.</p> <p>7 A. Okay. I don't -- the issue associated with my review</p> <p>8 was not septic systems at the Cow Palace. The issue</p> <p>9 was EPA identified septic systems as one of three</p> <p>10 potentially primary sources of groundwater</p> <p>11 contamination and set about to assess that in their</p> <p>12 report. That's what I was asked to -- I was asked to</p> <p>13 evaluate the EPA report, and that's what EPA evaluated.</p> <p>14 Q. Right. But here you're saying Shaw ignores the septic</p> <p>15 systems, which is different than EPA ignoring septic</p> <p>16 systems. Would you agree?</p> <p>17 A. No. I'm talking about -- no. I'm sorry.</p> <p>18 MR. CARTER: One minute. Objection. That</p> <p>19 misstates the testimony.</p> <p>20 A. I was discussing Shaw's reliance upon the EPA report.</p> <p>21 He does not acknowledge the results of EPA's own</p> <p>22 findings.</p> <p>23 Q. Okay. So you're only, then, critiquing Dr. Shaw's</p> <p>24 failure to rely on EPA's own findings about residential</p> <p>25 septic system contamination possibilities?</p>	<p style="text-align: right;">Page 112</p> <p>1 A. That's what I reviewed. The EPA report.</p> <p>2 Q. Right. So that's it, in terms of your rebuttal of</p> <p>3 Dr. Shaw, it's his reliance on the EPA report and</p> <p>4 failure to account for what EPA said in its report?</p> <p>5 A. Yes. I think that's accurate.</p> <p>6 Q. Okay. Did you review the Phase 1 and 2 investigations</p> <p>7 by EPA?</p> <p>8 A. No.</p> <p>9 Q. Again, you don't know how many people live in the Cow</p> <p>10 Palace area, correct?</p> <p>11 A. I don't.</p> <p>12 Q. You don't know how many cows there are?</p> <p>13 A. No.</p> <p>14 Q. Let's take a look at paragraph 14, your critique of</p> <p>15 paragraph 14 of the Shaw report. You say Dr. Shaw</p> <p>16 ignores the Roza Canal. I have just shown you data</p> <p>17 about the Roza Canal. Is it still your position that</p> <p>18 Dr. Shaw ignores the Roza Canal?</p> <p>19 A. Dr. Shaw didn't say anything about the Roza Canal, that</p> <p>20 I saw, in his report.</p> <p>21 Q. Okay.</p> <p>22 A. I didn't see it addressed.</p> <p>23 Q. Okay. The second sentence of your rebuttal talks about</p> <p>24 agricultural fields north of Cow Palace. Do you have</p> <p>25 any data or knowledge about what happens at those</p>
<p style="text-align: right;">Page 111</p> <p>1 MR. CARTER: Objection. Misstates testimony.</p> <p>2 Q. I'm just trying to figure out what it is you're doing</p> <p>3 here, because it's not clear to me.</p> <p>4 A. What I say is he selectively assigned Cow Palace as the</p> <p>5 primary course of nitrate in groundwater while ignoring</p> <p>6 other sources, including sources that are known to</p> <p>7 exist; for example, septic systems.</p> <p>8 Q. Right.</p> <p>9 A. He doesn't objectively evaluate the data that EPA</p> <p>10 developed associated with septic systems.</p> <p>11 Q. Okay. So your critique then, again, is just as to what</p> <p>12 EPA said in its report, not what Dr. Shaw is saying</p> <p>13 from the data that he's reviewed?</p> <p>14 THE WITNESS: Could you read that back to me?</p> <p>15 (THE REPORTER READ BACK THE QUESTION</p> <p>16 QUESTION.)</p> <p>17 A. I didn't see Dr. Shaw discussing all of the information</p> <p>18 in the EPA report. I saw him focusing selectively on</p> <p>19 the data from the Cow Palace, but not objectively</p> <p>20 contrasting that with data from other sources that EPA</p> <p>21 identified.</p> <p>22 Q. Right. Once again, I'm just trying to figure out what</p> <p>23 your frame of reference is for the critique. And is</p> <p>24 your frame of reference just the EPA report discussion</p> <p>25 of residential septic systems?</p>	<p style="text-align: right;">Page 113</p> <p>1 agricultural fields north of Cow Palace?</p> <p>2 A. That was out of the scope of my review.</p> <p>3 Q. So your answer is no?</p> <p>4 A. Only to the extent that I know that there are</p> <p>5 agricultural fields north of the Cow Palace and that</p> <p>6 there has been indications that -- by EPA that</p> <p>7 agricultural fields are a potential source of</p> <p>8 contamination.</p> <p>9 Q. Right. But you don't have any data to support that, do</p> <p>10 you?</p> <p>11 A. I don't have data for those fields, no.</p> <p>12 Q. With respect to paragraph 15 of Dr. Shaw's report,</p> <p>13 would you agree that nitrates in the soil column -- or</p> <p>14 in the groundwater, pardon me, nitrates in groundwater</p> <p>15 will continue to move until they are either three</p> <p>16 things: Denitrified, taken up by wells that are</p> <p>17 established in the aquifer, or until they reach a</p> <p>18 surface water body?</p> <p>19 MR. CARTER: Objection. Foundation and it goes</p> <p>20 beyond what's been, the opinions that have been</p> <p>21 indicated.</p> <p>22 A. Would you repeat the question for me, please?</p> <p>23 Q. Yes. Would you agree or disagree with the following</p> <p>24 statement: Nitrates in groundwater will continue to</p> <p>25 move until they are either denitrified, taken up by</p>



<p style="text-align: right;">Page 114</p> <p>1 wells that are placed in the aquifer, or until they</p> <p>2 reach a surface water body.</p> <p>3 MR. CARTER: Same objections.</p> <p>4 A. I would qualify that by saying that there are other</p> <p>5 possibilities, but nitrates are mobile in groundwater.</p> <p>6 Q. What are the other possibilities?</p> <p>7 A. There could be discharge into other water bodies.</p> <p>8 Q. That was one of the things I said. That was No. 3.</p> <p>9 A. Or, well, subsurface water bodies. I guess that's, I</p> <p>10 guess nothing comes to mind, so that's accurate.</p> <p>11 Q. Those three are fair to say?</p> <p>12 MR. CARTER: Objection. I repeat the QUESTION</p> <p>13 objections based on lack of foundation and that it</p> <p>14 exceeds the opinions that are expressed in his report,</p> <p>15 which we have right in front of us.</p> <p>16 Q. You are a licensed hydrogeologist, right?</p> <p>17 A. Yes.</p> <p>18 Q. You're opining based upon your expertise as a</p> <p>19 hydrogeologist?</p> <p>20 MR. CARTER: Objection. There's no foundation.</p> <p>21 And you certainly haven't laid a foundation regarding</p> <p>22 the types of data that would be considered and would be</p> <p>23 necessary to make these conclusions you're asking him</p> <p>24 to draw and which he did not draw in his report.</p> <p>25 MR. TEBBUTT: Okay. I think I got the answer I</p>	<p style="text-align: right;">Page 116</p> <p>1 below ground surface eventually reaches the Yakima</p> <p>2 River?</p> <p>3 MR. CARTER: Objection. Same objection. Lack of</p> <p>4 foundation, goes beyond the opinions that Mr. Maul has</p> <p>5 been asked to express and does express.</p> <p>6 A. I haven't reviewed the USGS information.</p> <p>7 Q. At all?</p> <p>8 A. At all.</p> <p>9 Q. Okay. Pardon me for doing this, but paragraph 16 on</p> <p>10 page 16 of your report you state, among other things,</p> <p>11 in the middle of your rebuttal, that Dr. Shaw does not</p> <p>12 discuss nitrogen uptake by crops in reducing nitrogen</p> <p>13 loading to groundwater. I would like to show you --</p> <p>14 MR. CARTER: I believe he's got it.</p> <p>15 Q. You have Dr. Shaw's report?</p> <p>16 A. I do.</p> <p>17 Q. Which is Exhibit 329. Would you turn to paragraph 25</p> <p>18 of Dr. Shaw's report, please?</p> <p>19 A. Pardon me? Paragraph 25?</p> <p>20 Q. 25.</p> <p>21 A. Okay.</p> <p>22 Q. In that paragraph Dr. Shaw talks about crop uptake of</p> <p>23 nitrogen, doesn't he?</p> <p>24 A. What was the question again?</p> <p>25 Q. Dr. Shaw talks about crop uptake of nitrogen, doesn't</p>
<p style="text-align: right;">Page 115</p> <p>1 was looking for, so I think we'll move on.</p> <p>2 MR. CARTER: Counsel, you're fishing for opinions</p> <p>3 that weren't made in the report.</p> <p>4 MR. TEBBUTT: Well, you know, Mr. Carter, Mr. Maul</p> <p>5 makes a lot of broad accusations in his report about</p> <p>6 denitrification, about lack of data, about information</p> <p>7 between the vadose zones. So he's opened himself up</p> <p>8 for questioning in this area. And I don't appreciate</p> <p>9 your attempts to limit my questioning.</p> <p>10 MR. CARTER: Fair enough. We'll continue to</p> <p>11 object because this deposition, again, is supposed to</p> <p>12 be based on the opinions Mr. Maul expressed, not trying</p> <p>13 to make him come up with any opinions based on the data</p> <p>14 you present him.</p> <p>15 MR. TEBBUTT: It's also based on discovery.</p> <p>16 That's what we're here for. We're not at trial, we're</p> <p>17 not talking about admissibility, we're talking about</p> <p>18 discovery. These are fair questions.</p> <p>19 MR. CARTER: You're trying to make him come up</p> <p>20 with a new opinion that he hasn't expressed. He's not</p> <p>21 your expert. That's beyond the scope.</p> <p>22 MR. TEBBUTT: Disagree. Let's move on.</p> <p>23 Q. (By Mr. Tebbutt) Do you have any evidence to discount</p> <p>24 the USGS finding that the shallower part of the aquifer</p> <p>25 in the area ranging from 30 to 160 feet or so feet</p>	<p style="text-align: right;">Page 117</p> <p>1 he, in paragraph 25?</p> <p>2 A. Yes.</p> <p>3 Q. And in paragraphs 28 through 32 -- actually, it's 28</p> <p>4 through 39, doesn't he also talk about crop uptake of</p> <p>5 nitrogen?</p> <p>6 A. Yes.</p> <p>7 Q. Moving on to paragraph 18 of Dr. Shaw's report that you</p> <p>8 rebut, you say there is widespread evidence of legacy</p> <p>9 impacts of agricultural practices. I think we already</p> <p>10 discussed this, so I'm happy if you're content with the</p> <p>11 asked and answered anticipated objection from counsel,</p> <p>12 that the only information you have, are relying on</p> <p>13 about your statement about widespread evidence of</p> <p>14 legacy impacts is anecdotal discussions that you've</p> <p>15 heard while you were at Cow Palace and Stu Turner's</p> <p>16 comments. That's all of the evidence you have for that</p> <p>17 statement, correct?</p> <p>18 A. No, I wouldn't say that.</p> <p>19 Q. What are the other?</p> <p>20 A. There are the fact that there has been many, many years</p> <p>21 of agricultural use and fertilizer application in the</p> <p>22 Yakima Valley that in all likelihood has contributed to</p> <p>23 groundwater impacts that are the subject of the EPA's</p> <p>24 investigation.</p> <p>25 Q. What evidence do you have of that, other than what we</p>





<p style="text-align: right;">Page 118</p> <p>1 just discussed?</p> <p>2 A. That's outside of what I've been asked to evaluate, so</p> <p>3 I don't have specific information --</p> <p>4 Q. So then --</p> <p>5 A. -- that I can provide you.</p> <p>6 Q. So then how do you make the statement that there's</p> <p>7 widespread evidence of legacy impacts?</p> <p>8 A. Well, there are impacts throughout the Yakima Valley to</p> <p>9 groundwater that are not attributable to a specific</p> <p>10 activity that exists today.</p> <p>11 Q. What's the evidence of that? Once again, we're in a</p> <p>12 circular argument here, right?</p> <p>13 A. Yeah.</p> <p>14 Q. Where's your evidence?</p> <p>15 A. I don't have evidence to present to you today.</p> <p>16 Q. And you haven't reviewed any in coming up with your</p> <p>17 rebuttal, right?</p> <p>18 A. That's outside of the scope of my review.</p> <p>19 Q. Right. The point is, you don't have any evidence of</p> <p>20 that, do you?</p> <p>21 A. No.</p> <p>22 MR. CARTER: Objection. That misstates the --</p> <p>23 Q. Because it's outside of the scope of what you were</p> <p>24 asked to do, you don't have any evidence of it?</p> <p>25 MR. CARTER: Counsel, I was in the middle of an</p>	<p style="text-align: right;">Page 120</p> <p>1 (A SHORT RECESS WAS HAD.)</p> <p>2 MR. TEBBUTT: Shall we go back on the record?</p> <p>3 A. We're on page 16 again?</p> <p>4 Q. (By Mr. Tebbutt) Yeah. I think we're still on page</p> <p>5 16. You know what I'd like to do, if I might, is take</p> <p>6 that exhibit and handwrite in page numbers starting one</p> <p>7 through the end.</p> <p>8 MR. CARTER: Sure, if you would like.</p> <p>9 Q. Would we be okay with that? Why don't we, to make life</p> <p>10 easier. I'll circle the number in the bottom right</p> <p>11 corner.</p> <p>12 MR. CARTER: Okay.</p> <p>13 MR. TEBBUTT: For the record and with counsel's</p> <p>14 approval, I circled, starting with the cover page, page</p> <p>15 1 through page 14, each page of Mr. Maul's rebuttal</p> <p>16 report, because the report erroneously had page 16 on</p> <p>17 each of the pages. I also note that the exhibit has</p> <p>18 two copies of the same document in it, and with</p> <p>19 permission from counsel, I will remove the second copy.</p> <p>20 MR. CARTER: I think that's a good idea. Yep.</p> <p>21 Q. (Mr. Mr. Tebbutt) So now Exhibit 347 consists of</p> <p>22 14 pages.</p> <p>23 Okay. Mr. Maul, paragraph 22 of Dr. Shaw's report</p> <p>24 now found on the new starting on page 2 of your report,</p> <p>25 as we just repaginated it, your rebuttal report,</p>
<p style="text-align: right;">Page 119</p> <p>1 objection. I didn't know whether I was objecting to</p> <p>2 the misstatement of your prior question or the</p> <p>3 misstatement of his testimony. But you just asked</p> <p>4 whether there was any evidence and your prior question</p> <p>5 was whether there was additional evidence.</p> <p>6 Q. Any evidence other than Stu Turner and the anecdotal,</p> <p>7 you have no other evidence, right?</p> <p>8 A. Other than the acknowledgment of the historical</p> <p>9 practices that have occurred in the Valley prior to --</p> <p>10 or going back to the beginning of the last century.</p> <p>11 Q. Referenced in the EPA report?</p> <p>12 A. That's referenced in the -- that is referenced in the</p> <p>13 EPA report.</p> <p>14 Q. Okay.</p> <p>15 MR. CARTER: Counsel, I see we're at 12:05. I</p> <p>16 don't know whether you're planning on continuing after</p> <p>17 lunch or I'm happy to take a break and continue maybe</p> <p>18 for another half our or so or we can break and come</p> <p>19 back.</p> <p>20 MR. TEBBUTT: I would suggest we try going about</p> <p>21 another half an hour and see if we can wrap this up,</p> <p>22 we're getting really close.</p> <p>23 MR. CARTER: Can we take five minutes?</p> <p>24 MR. TEBBUTT: Sure.</p> <p>25 MR. CARTER: Thank you.</p>	<p style="text-align: right;">Page 121</p> <p>1 Exhibit 347 --</p> <p>2 A. Page 2.</p> <p>3 Q. Yes. Starting on page 2, bottom of page 2 and</p> <p>4 continuing on through page 3.</p> <p>5 MR. CARTER: I think it's page 8. I think</p> <p>6 paragraph 22 of Shaw's which is on page 8.</p> <p>7 Q. Yes. I'm sorry. Thank you for the clarification.</p> <p>8 Starting on page 8 of your report, Shaw's paragraph 22,</p> <p>9 you say that Shaw's claim about denitrification is</p> <p>10 unsupported by applicable soils data, among other</p> <p>11 things. That's just a rough piece.</p> <p>12 Does in fact Dr. Shaw discuss denitrification at</p> <p>13 paragraphs 24 -- well, I'm going to put out a list --</p> <p>14 24, 33, 112, 152, 164, 168, 169, and 173 through 174?</p> <p>15 And I can go back and do these paragraph by paragraph,</p> <p>16 if that's helpful to you. Would you like me to do it</p> <p>17 that way?</p> <p>18 A. I don't think it's helpful. The point that I was</p> <p>19 making there, and I found this to be really consistent</p> <p>20 throughout the EPA report, that there is a discussion</p> <p>21 about the shallow aquifer and the shallow groundwater</p> <p>22 and it's really not acknowledged that the depth of</p> <p>23 ground water in the area of the dairies is typically 80</p> <p>24 to over 100 feet thick, and that the processes</p> <p>25 associated with the unsaturated zone and, again, the</p>



<p style="text-align: right;">Page 122</p> <p>1 transport of nitrogen to groundwater that can occur</p> <p>2 within that unsaturated zone are significant. And I</p> <p>3 think it's just -- I thought the EPA report was very</p> <p>4 misleading in terms of its basically lack of any</p> <p>5 acknowledgment of that fairly significant and likely</p> <p>6 somewhat complex unsaturated thickness.</p> <p>7 And I just saw -- I didn't see any acknowledgment</p> <p>8 of that in Dr. Shaw's testimony. In fact, he</p> <p>9 references unsaturated hydraulic conductivity to imply</p> <p>10 that there is moderately high in the capacity to</p> <p>11 transmit water, but the material under the -- in the</p> <p>12 area of the dairies in the unsaturated zone is just</p> <p>13 that, it's unsaturated. So it's not hydraulically,</p> <p>14 there is no hydraulic head driving that water.</p> <p>15 Q. Okay. So you just said that the aquifer is generally</p> <p>16 80 to 190 feet?</p> <p>17 A. No. 80 to over 100.</p> <p>18 Q. Over 100?</p> <p>19 A. Feet thick.</p> <p>20 Q. Not 190, 100?</p> <p>21 A. It's 80 to over 100 feet thick, yeah.</p> <p>22 Q. In fact, looking at Exhibit 333, which you've looked at</p> <p>23 before, for DC-04 the well depth is 51 feet; would you</p> <p>24 agree, if that's an accurate summary?</p> <p>25 A. Where is DC-04 at?</p>	<p style="text-align: right;">Page 124</p> <p>1 A. I don't recall seeing them.</p> <p>2 Q. Did you ever see the deep soil borings done by Arcadis</p> <p>3 on the Cow Palace property that were referenced in</p> <p>4 Dr. Melvin's report?</p> <p>5 A. The deep wells on the Cow Palace?</p> <p>6 Q. Deep soil samples.</p> <p>7 A. Deep soil samples. No.</p> <p>8 Q. Let me just show you. This is from, this is for ease</p> <p>9 of quickness, it just so happens to ironically be page</p> <p>10 16 of Dr. Melvin's rebuttal report.</p> <p>11 A. That's convenient.</p> <p>12 Q. Have you ever seen that table before?</p> <p>13 A. No.</p> <p>14 Q. That makes the questions a lot easier.</p> <p>15 You state that the EPA report, again, on page 8 of</p> <p>16 your report discussing Shaw's paragraph 22, the EPA</p> <p>17 report did not present any argon gas analysis data.</p> <p>18 Are you saying that the EPA report did not reference</p> <p>19 the argon gas analysis or just that it didn't present</p> <p>20 the data?</p> <p>21 A. I just didn't see it.</p> <p>22 Q. You're not disputing the EPA discussed argon gas in its</p> <p>23 report?</p> <p>24 A. I didn't see it.</p> <p>25 Q. Take a look at pages 29 through 30 of the EPA report.</p>
<p style="text-align: right;">Page 123</p> <p>1 Q. Right here at the top.</p> <p>2 A. Where is it located on the map?</p> <p>3 Q. Let's take a look. Right at the bottom of the Cow</p> <p>4 Palace property.</p> <p>5 A. Yeah, I hadn't seen that well log. I wasn't aware of</p> <p>6 that. So that's one exception.</p> <p>7 Q. Okay. So you don't know whether Dr. Shaw reviewed soil</p> <p>8 boring logs in making his determination about the types</p> <p>9 of soil that were available in the vadose zone above</p> <p>10 the groundwater table?</p> <p>11 A. He doesn't reference that.</p> <p>12 Q. Do you know that these -- you know that these wells</p> <p>13 were drilled by both EPA and the dairies, right?</p> <p>14 MR. CARTER: Objection. Calls for speculation.</p> <p>15 Q. The wells that are listed in Exhibit 333?</p> <p>16 A. I know that the, YVD wells were drilled as a, as part</p> <p>17 of the AOC. I'm not familiar with the history of the</p> <p>18 DC wells.</p> <p>19 Q. Okay. Those are referenced in the EPA report, aren't</p> <p>20 they, in the March 2013 EPA report, the DC wells for</p> <p>21 the EPA wells?</p> <p>22 A. I don't believe so. I don't believe so.</p> <p>23 Q. You don't believe they're referenced?</p> <p>24 A. I don't believe they're referenced, the DC wells.</p> <p>25 Q. Okay.</p>	<p style="text-align: right;">Page 125</p> <p>1 Let's, for these purposes, let's use Exhibit 324.</p> <p>2 That'll be easier. Take a look at pages 29 and 30.</p> <p>3 A. Let me make sure I know what I said. What number were</p> <p>4 we?</p> <p>5 Q. Pages 29 and 30 of the EPA report.</p> <p>6 A. Related to?</p> <p>7 Q. Paragraph 22 of the Shaw report on page 8 of your</p> <p>8 rebuttal report. Do you see the last sentence of your</p> <p>9 critique?</p> <p>10 A. Yeah, yeah. And I'm looking at pages 29 and 30. Oh.</p> <p>11 Missed it.</p> <p>12 Q. So your critique, then, is wrong, in that particular</p> <p>13 spot?</p> <p>14 A. Well, my --</p> <p>15 Q. Correct?</p> <p>16 A. Yes.</p> <p>17 Q. Okay. Taking a look at paragraph 177 of Dr. Shaw's</p> <p>18 report, which is on page 163 of Exhibit 329.</p> <p>19 A. Okay.</p> <p>20 Q. Do you have that in front of you?</p> <p>21 A. I have to get organized. 177?</p> <p>22 Q. Yeah. Paragraph 177, page 163.</p> <p>23 A. Oh. I'm sorry.</p> <p>24 Q. Dr. Shaw, you said you didn't see any data or</p> <p>25 discussion about Dr. Shaw's reliance on the fact that</p>



<p style="text-align: right;">Page 126</p> <p>1 denitrification is unlikely to occur. Doesn't this</p> <p>2 par --</p> <p>3 A. I'm sorry. Go ahead.</p> <p>4 Q. Yes. Doesn't this paragraph actually provide some of</p> <p>5 the data that Dr. Shaw relied on in discussing the</p> <p>6 local lithology, soil types? That does help form</p> <p>7 Dr. Shaw's opinion?</p> <p>8 MR. CARTER: Objection. Misstates the report.</p> <p>9 Misstates the testimony in the report.</p> <p>10 A. I did want to refer to that. I don't believe that I</p> <p>11 was making a -- I don't believe that I was making a</p> <p>12 statement regarding Dr. Shaw's Item No. 16 that he did</p> <p>13 not discuss denitrification in his report. I was</p> <p>14 relating that to his statement above.</p> <p>15 Q. What statement above?</p> <p>16 A. His statement No. 16.</p> <p>17 Q. So your 22 comment is based -- refers back to your 16</p> <p>18 comment? That's why I'm confused. I'm talking about</p> <p>19 paragraph 22 on page 8, where you say --</p> <p>20 A. Right.</p> <p>21 Q. -- you say -- oh. I see. You're just refuting that</p> <p>22 Shaw's report claims that denitrification was verified</p> <p>23 by EPA. You're not saying anything else generally</p> <p>24 about denitrification in the area; you're not rebutting</p> <p>25 Dr. Shaw's conclusion that denitrification is unlikely</p>	<p style="text-align: right;">Page 128</p> <p>1 wells and soil and the geology that was logged in those</p> <p>2 wells.</p> <p>3 Q. But again, you're not opining at all whether</p> <p>4 denitrification is likely to occur. You were not asked</p> <p>5 to do that, correct?</p> <p>6 A. That's outside of my scope, that's correct.</p> <p>7 Q. Are you qualified to make such an opinion if you were</p> <p>8 to look into that?</p> <p>9 A. Probably, it's not within my area of expertise.</p> <p>10 Q. Okay. Page 9 of your rebuttal report, paragraph 178 of</p> <p>11 the Shaw report, you're not saying that Shaw's claiming</p> <p>12 that the Cow Palace flow goes through one percent of</p> <p>13 the whole soil matrix, correct?</p> <p>14 A. I'm just saying that I did not see site specific data</p> <p>15 that he was relying upon.</p> <p>16 Q. Right. Was he in fact referring to scientific</p> <p>17 literature when he made that statement?</p> <p>18 A. Not site specific data.</p> <p>19 Q. Correct. He was referring to scientific literature,</p> <p>20 not specifically about Cow Palace, correct?</p> <p>21 A. Okay.</p> <p>22 Q. Is that correct?</p> <p>23 A. Let me see what he says. He is referencing scientific</p> <p>24 literature and then relating it back to the Cow Palace</p> <p>25 in that statement.</p>
<p style="text-align: right;">Page 127</p> <p>1 to occur?</p> <p>2 A. I was just commenting as it relates to reliance on the</p> <p>3 EPA report, and specifically, the full -- the lack of</p> <p>4 discussion about the full unsaturated thickness of the</p> <p>5 subsurface of the Cow Palace. And then I did miss the</p> <p>6 discussion of the argon gas.</p> <p>7 Q. Just to be clear, you're not taking issue with Dr.</p> <p>8 Shaw's conclusion that denitrification is unlikely to</p> <p>9 occur; is that correct?</p> <p>10 A. I wasn't asked to opine with respect to denitrification</p> <p>11 and the occurrence of denitrification.</p> <p>12 Q. That's all I wanted to clarify.</p> <p>13 A. Okay. Okay. Then, I'm sorry, I wanted to go back. I</p> <p>14 thought there was some clarification needed there. So</p> <p>15 you were -- we are on --</p> <p>16 Q. On what? Clarification on what issue?</p> <p>17 A. Just the discussion with respect to my statement in No.</p> <p>18 22 on denitrification.</p> <p>19 Q. I think we're okay now.</p> <p>20 A. I think we're okay. I thought you had another</p> <p>21 question, so I was trying to come back.</p> <p>22 Q. Not at the moment. Not at the moment.</p> <p>23 A. Okay. All right.</p> <p>24 Q. Have you reviewed drilling logs for soil types?</p> <p>25 A. I reviewed the drilling logs from the AOC monitoring</p>	<p style="text-align: right;">Page 129</p> <p>1 Q. In general terms, right? He's just saying that's a</p> <p>2 possibility?</p> <p>3 A. But he says once he found the flow became -- talks</p> <p>4 about.</p> <p>5 Q. He's not saying --</p> <p>6 A. This is largely due to preferential flow paths that</p> <p>7 occur in most soils. A general statement. Such as</p> <p>8 those found in and around Cow Palace Dairy.</p> <p>9 Q. Do you disagree with the general statement that</p> <p>10 preferential flow paths exist in soils?</p> <p>11 A. What would be considered to be a preferential flow</p> <p>12 path?</p> <p>13 Q. I don't know the answer to that, I'm the lawyer. What</p> <p>14 do I know?</p> <p>15 A. He goes on to state: A combination of soil structure</p> <p>16 properties and over --</p> <p>17 Q. I'm just asking --</p> <p>18 A. I'm going to finish answering that earlier question, if</p> <p>19 that's okay.</p> <p>20 Q. Okay.</p> <p>21 A. -- and overlapping lenses of soils with different</p> <p>22 porosities often results in rapid transport time from</p> <p>23 soil surfaces to groundwater. Again, I don't know what</p> <p>24 supports that. One study found that flow became more</p> <p>25 preferential --</p>



<p style="text-align: right;">Page 130</p> <p>1 Q. You don't have to read it out loud. Just read it to 2 yourself.</p> <p>3 A. Well, the reason I was reading it was because he then 4 goes on to state that: Based on soil types found in 5 the vicinity of Cow Palace Dairy, I believe similar 6 flow patterns exist. And he -- and that's what I said 7 earlier, is that he does reference a source, but then 8 he relates it back to the Cow Palace and he doesn't 9 provide a basis for his statement related to the Cow 10 Palace.</p> <p>11 Q. That's not a -- the basis in paragraph 178 doesn't 12 provide his basis, you're saying?</p> <p>13 A. He just says based on soil types found in the vicinity 14 of Cow Palace, and I don't know what he's basing that 15 statement on.</p> <p>16 Q. Okay. Again, page 9 of your rebuttal report, regarding 17 paragraph 179 of Shaw's report, do you have -- you 18 don't have any idea what other areas upgradient of Cow 19 Palace are irrigated, do you; you weren't tasked with 20 that, correct?</p> <p>21 A. That's correct.</p> <p>22 Q. We've already gone over the pharmaceutical issues, so I 23 won't beat that issue further.</p> <p>24 With regard to on page 10, 188 of your rebuttal 25 report, referencing Shaw's 188, a similar question to</p>	<p style="text-align: right;">Page 132</p> <p>1 of contamination and that aren't addressed.</p> <p>2 Q. You haven't reviewed the references that Dr. Shaw uses 3 to come to his conclusions in his report, for the most 4 part, correct?</p> <p>5 A. That's -- what references would we be discussing in 6 terms of 191 to 224?</p> <p>7 Q. References start at 329 --</p> <p>8 MR. CARTER: That would be footnote 329?</p> <p>9 Q. Uh-huh. Uh-huh. And go through 342,</p> <p>10 You haven't reviewed those references, have you?</p> <p>11 A. That would be correct.</p> <p>12 Q. So aren't you essentially trying to disagree with 13 Dr. Shaw's conclusions without having the same volume 14 of information that Dr. Shaw has?</p> <p>15 A. I didn't see this information discussed in his 16 statements.</p> <p>17 Q. And if you'll also take a look at page 4 of Dr. Shaw's 18 report.</p> <p>19 A. Page 4.</p> <p>20 Q. Page 4. Starting at paragraph 8, and that runs from 21 page 4 until page 7. Those discuss the documents that 22 Dr. Shaw relied on in coming to his conclusions. You 23 haven't reviewed much of any of that data, either, have 24 you?</p> <p>25 A. With the exception of what I've already --</p>
<p style="text-align: right;">Page 131</p> <p>1 what we were just discussing: You have no data to show 2 that there are contributions from upgradient sources, 3 right?</p> <p>4 A. I have no data on the upgradient properties.</p> <p>5 Q. Again, because you weren't tasked with looking at that, 6 right?</p> <p>7 A. That's correct.</p> <p>8 Q. Similar question for page 11, referencing paragraph 190 9 of Dr. Shaw's report: You don't have any data to show 10 that there are artesian conditions at Cow Palace or 11 around Cow Palace, correct?</p> <p>12 A. That's correct. And again, that wasn't something that 13 I was asked to evaluate.</p> <p>14 Q. With regard to paragraphs 191 through 224 of Dr. Shaw's 15 report, you make a sort of blanket statement about 16 Dr. Shaw's report. What basis do you have to rebut the 17 data that Dr. Shaw relied on?</p> <p>18 A. Let me see what I said. We're on page 11, 191 to 224?</p> <p>19 Q. Yes.</p> <p>20 A. I think this just goes to my earlier statement that the 21 -- and back to the EPA report, that they identified 22 three potential activities that could be major sources 23 of nitrate contamination. And that I -- it seemed like 24 the report ignores other potential activities, both 25 historic, possibly current, that could also be sources</p>	<p style="text-align: right;">Page 133</p> <p>1 Q. Right.</p> <p>2 A. -- stipulated to.</p> <p>3 Q. Right. You haven't reviewed any of that other data. 4 We can go through each one, but I'd rather not spend 5 the time.</p> <p>6 A. Yeah.</p> <p>7 Q. You would agree with that?</p> <p>8 A. Other than what I've already disclosed, I haven't 9 reviewed any of these other than what I've already 10 disclosed.</p> <p>11 Q. Yeah. With respect to Mr. Erickson's report -- do you 12 know Mr. Erickson, by the way?</p> <p>13 A. I don't.</p> <p>14 Q. I think we've hit this one pretty hard already because 15 this dealt with Dr. Shaw's report. With respect to 16 your critique of paragraph 20 of Dr. Erickson's report, 17 you would agree that we've confirmed that you don't 18 have any data about upgradient fields from Cow Palace, 19 correct?</p> <p>20 A. That is accurate. The, my concern is that it seems to 21 be pretty dismissed as a potential source, and again, I 22 wasn't scoped with the -- or tasked to evaluate it, but 23 there are conclusions being drawn absent an evaluation 24 of a potential impact from the upstream, upgradient 25 sources. And that was the point I was trying to make.</p>



<p style="text-align: right;">Page 134</p> <p>1 Q. And similar to what we just talked about with Dr. Shaw, 2 starting on page 5 of Mr. Erickson's report, and 3 running to page 8 -- I'll hand you Exhibit 325, which 4 is Mr. Erickson's report -- he has three-plus pages of 5 documents that he's reviewed in coming to his opinions. 6 Same question I asked you with Dr. Shaw, other 7 than the documents that you have stipulated that you 8 reviewed, you haven't reviewed this other plethora of 9 data, correct? 10 A. I'm sorry, where did you say the reference is? 11 Q. Starting at page 5 -- 12 A. Starting at page 5. 13 Q. -- and running through the end of page 8, the bottom of 14 paragraph -- excuse me, for the record, paragraph 12. 15 A. It looks like he -- go to the end on page 8. 16 Q. Uh-huh. 17 A. Other than what I've already stipulated to having 18 reviewed, I haven't reviewed the other documents that 19 Erickson references. 20 Q. Okay. Paragraph 21 of Mr. Erickson's report, page 12 21 of your rebuttal, says: Mr. Erickson's conclusions 22 regarding perched ground water beneath Cow Palace 23 relying on the Haak data are unfounded. 24 A. I'm sorry what paragraph number? 25 Q. Paragraph 21 on page 12 of your report.</p>	<p style="text-align: right;">Page 136</p> <p>1 A. If you're an experienced geologist using an air rotary 2 rig you would be looking for indications of perched 3 water and moisture content changes in material. 4 Q. They didn't drill below the lagoon, right through the 5 lagoons in any of the Cow Palace facilities, right? 6 A. Not that I'm aware of. 7 Q. They would be more likely to find perched water under a 8 large liquid manure source than you would in dry 9 conditions, wouldn't you? 10 A. Well, if there was a mechanism for water to be perched. 11 If there was perched water that would, again, it would 12 be important because that would impede the flow and 13 recharge to the aquifer. 14 Q. Right. Then what you might get is some horizontal flow 15 until you hit another opening of a preferential 16 pathway, if you will, for that to go further down into 17 groundwater, right? 18 A. You could see migration in a perched system that would 19 be subject to the geology. 20 Q. Right. So paragraph 23, of Mr. Erickson's report, Mr. 21 Erickson relies on more than just the EPA report in 22 making his conclusion in paragraph 23, doesn't he? 23 A. I come back to my earlier comments regarding the EPA 24 report and reliance on the EPA report is in discussing 25 shallow monitoring wells, that in general the ground</p>
<p style="text-align: right;">Page 135</p> <p>1 A. Okay. Uh-huh. 2 Q. Do you believe that it is inappropriate to rely on data 3 that comes from similar soil types and elevations and 4 similarly constructed earthen lagoons for Mr. Erickson 5 to rely on some of the Haak data to extrapolate to the 6 Cow Palace situation? 7 A. What do you base your conclusion that there are similar 8 soil types that Haak has relates to Cow Palace's 9 subsurface? 10 Q. That's what Mr. Erickson relies on in his report in the 11 well boring logs. 12 A. I don't think you can make that extrapolation, I 13 believe the geology is likely to be different. 14 Actually, I think that's supported by the Arcadis 15 drilling logs. 16 Q. What's supported by the Arcadis drilling logs? 17 A. That the geology/lithology is different. They didn't 18 see any perched water in those boring logs. 19 Q. Do you know that they used an air rotary drill in when 20 they did the logs at Arcadis? 21 A. Yes. 22 Q. You could miss perched water in some of those settings, 23 couldn't you, using an air rotary drill? 24 A. Not if you're careful. 25 Q. It's possible you could miss?</p>	<p style="text-align: right;">Page 137</p> <p>1 water -- the uppermost groundwater is actually fairly 2 deep. There's a fairly thick unsaturated zone. 3 Q. But my question is Mr. Erickson relies on more than 4 just the EPA report in coming to his conclusions in 5 paragraph 23, doesn't he? And your critique is just of 6 the EPA report reliance, correct? 7 A. I don't know what reports he relies upon. He says 8 other earlier studies. 9 Q. Right. Your critique, though, just so you understand 10 my question, your critique is that you think that Mr. 11 Erickson should not have relied upon the EPA report. 12 You're not opining about anything else he relied upon, 13 correct? 14 A. My focus was on reliance on the EPA report, that's 15 correct. 16 Q. Exclusively? 17 A. Yes. 18 Q. For that paragraph? 19 A. Yes. 20 Q. Okay. With respect to paragraph 25 of the Erickson 21 report, starting on the bottom of page 12 of your 22 report and going to the top of page 13, again, Mr. 23 Erickson has reviewed a lot more data than you have in 24 coming to his conclusions, correct? 25 A. I don't -- I can't necessarily relate what he's</p>

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<p style="text-align: right;">Page 138</p> <p>1 reviewed in terms of his conclusion, but I do know</p> <p>2 that it's erroneous to apply saturated hydraulic</p> <p>3 conductivity to unsaturated soil conditions.</p> <p>4 Q. Right. But we don't know whether we have saturated</p> <p>5 soil conditions under the lagoons at the Cow Palace</p> <p>6 property, do we?</p> <p>7 A. That's not what -- there is no indication that that's</p> <p>8 what he's talking about. So I would be speculating if</p> <p>9 I guessed. I make specific reference to unsaturated</p> <p>10 soils. That's what my concern is about.</p> <p>11 Q. So if Mr. Erickson was referring -- this is in his sort</p> <p>12 of general statement section of his report, correct?</p> <p>13 A. I don't know what you're looking at.</p> <p>14 Q. Well, do you have Mr. Erickson's report in front of</p> <p>15 you?</p> <p>16 A. I do.</p> <p>17 Q. So starting at page 9, scientific and factual</p> <p>18 background, paragraph 17 through 31, are sort of</p> <p>19 general statements and principles based upon his review</p> <p>20 of a lot more data than you looked at, correct?</p> <p>21 A. Well, these are very generalized statements --</p> <p>22 Q. Right.</p> <p>23 A. -- what I'm seeing.</p> <p>24 Q. Right.</p> <p>25 A. My, my evaluation of the EPA report.</p>	<p style="text-align: right;">Page 140</p> <p>1 CHANGES IN FORM AND SUBSTANCE REQUESTED BE MADE</p> <p>2 IN THE FOREGOING ORAL EXAMINATION TRANSCRIPT:</p> <p>3 (NOTE: If no changes desired, please sign and date where</p> <p>4 indicated below.)</p> <p>5 PAGE LINE CORRECTION AND REASON</p> <p>6</p> <p>7</p> <p>8</p> <p>9</p> <p>10</p> <p>11</p> <p>12</p> <p>13</p> <p>14</p> <p>15</p> <p>16</p> <p>17</p> <p>18 I, JAMES MAUL, hereby declare under penalty of perjury</p> <p>19 that I have read the foregoing deposition and that the</p> <p>20 testimony contained therein is a true and correct</p> <p>21 transcript of my testimony, noting the corrections above.</p> <p>22 JAMES MAUL</p> <p>23 Date</p> <p>24 See: Wash. Reports 34A, Rule 30(e)</p> <p>25 USCA 28, Rule 30(e)</p> <p>PLEASE RETURN TO: Central Court Reporting,</p> <p>P.O. Box 8029, Yakima, WA 98908 PCL</p>
<p style="text-align: right;">Page 139</p> <p>1 Q. Okay. Based on all of the data that you've been</p> <p>2 presented today for the first time, do you have any</p> <p>3 opinion about whether it's more likely than not that</p> <p>4 Cow Palace is contributing to the groundwater</p> <p>5 contamination below its site?</p> <p>6 MR. CARTER: Objection. Lack of foundation, goes</p> <p>7 beyond the opinions that were expressed.</p> <p>8 A. I haven't had an opportunity to evaluate the data.</p> <p>9 That would actually take a little bit of time to do</p> <p>10 that before I could form such an opinion.</p> <p>11 Q. You don't think it's pretty obvious from looking at</p> <p>12 what you've seen?</p> <p>13 A. I, again, I haven't had a chance to digest and evaluate</p> <p>14 the data and look at it in the context of the full</p> <p>15 report, so I couldn't form an opinion.</p> <p>16 Q. All right. And the people that are paying you are</p> <p>17 here, so you don't want to pass that opinion based on</p> <p>18 what is fairly obvious information, correct?</p> <p>19 A. That was a statement, not a question, right?</p> <p>20 MR. CARTER: Counsel -- correct.</p> <p>21 MR. TEBBUTT: We're done. All right.</p> <p>22 (DEPOSITION CONCLUDED AT 12:55 P.M.)</p> <p>23 (SIGNATURE RESERVED.)</p> <p>24</p> <p>25</p>	<p style="text-align: right;">Page 141</p> <p>1 C E R T I F I C A T E</p> <p>2 STATE OF WASHINGTON )</p> <p>3 ) ss.</p> <p>4 COUNTY OF YAKIMA )</p> <p>5 This is to certify that I, Phyllis Craver Lykken,</p> <p>6 Certified Court Reporter in and for the State of</p> <p>7 Washington, residing at Yakima, reported the within and</p> <p>8 foregoing deposition; said deposition being taken before</p> <p>9 me on the date herein set forth; that pursuant to RCW</p> <p>10 5.28.010 the witness was first by me duly sworn; that</p> <p>11 said examination was taken by me in shorthand and</p> <p>12 thereafter under my supervision transcribed, and that</p> <p>13 same is a full, true and correct record of the testimony</p> <p>14 of said witness, including all questions, answers and</p> <p>15 objections, if any, of counsel.</p> <p>16 I further certify that I am not a relative or</p> <p>17 employee or attorney or counsel of any of the parties,</p> <p>18 nor am I financially interested in the outcome of the</p> <p>19 cause.</p> <p>20 IN WITNESS WHEREOF I have set my hand this</p> <p>21 day of , 2014</p> <p>22</p> <p>23 PHYLLIS CRAVER LYKKEN, RPR,</p> <p>24 CCR NO. 2423</p> <p>25</p>





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